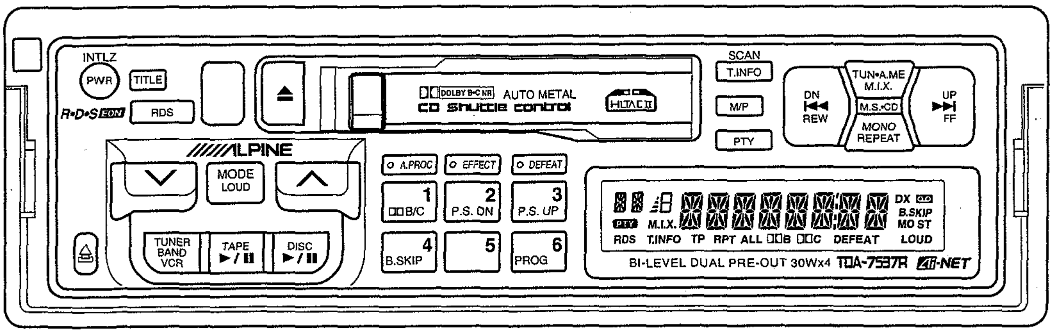
ALPINE®

SERVICE MANUAL

FM/MW/LW/RDS Cassette Receiver

CD Shuttle Controller

- For the cassette deck mechanism parts (GR75H13A) of this model, refer to the Service Manual • GR/GR-Y Series (68P20504W07).


INTLZ
PWR
TITLE
R•D•S EON
RDS
ALPINE
MODE LOUD
TUNER BAND VCR
TAPE ►/❚❚
DISC ►/❚❚
DOLBY B•C NR AUTO METAL
CD Shuttle control
HI.TAC II
SCAN
T.INFO
M/P
PTY
DN
REW
TUN•A.ME M.I.X.
M.S.•CD
MONO REPEAT
UP
FF
A.PROC
EFFECT
DEFEAT
1 B/C
2 P.S. ON
3 P.S. UP
4 B.SKIP
5
6 PROG
PTY M.I.X.
DX
B.SKIP
MO ST
RDS T.INFO TP RPT ALL B C DEFEAT LOUD
BI-LEVEL DUAL PRE-OUT 30Wx4 TDA-7537R Ai-NET

Ai-NET

TDA-7537R

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Spare Schematic Diagram Inserted.

Specifications

FM RADIO

Intermediate Frequency	10.7±0.1MHz
Frequency Range	87.5~108MHz
Usable Sensitivity (Mono, 30dB S / N, at 98.1MHz)	17.2dBf
-3dB Limiting Sensitivity (at 98.1MHz)	19.2dBf
S / N Ratio (Stereo, at 98.1MHz)	56dB
Image Rejection (at 106.1MHz)	40dB
IF Rejection (at 90.1MHz)	60dB
Distortion (Input 60dBμ, at 98.1MHz)	1%
Frequency Response (Ref. 400Hz, at 98.1MHz)	100Hz : 0±3dB 10kHz : -12±3dB
Stereo Separation (at 98.1MHz)	20dB
PS Sensitivity (at 98.1MHz)	36.2dBf
TP Sensitivity (at 98.1MHz)	36.2dBf

MW RADIO

Intermediate Frequency	450kHz
Frequency Range	531~1,602kHz
Usable Sensitivity (20dB S / N, at 999kHz)	34dB
S / N Ratio (at 999kHz)	44dB
Image Rejection (at 1,404kHz)	50dB
IF Rejection (at 603kHz)	60dB
Distortion (at 999kHz)	1.5%
Frequency Response (Ref. 400Hz, at 999kHz)	100Hz : -3±4dB 4kHz : -12+6, -12dB

LW RADIO

Intermediate Frequency	450kHz
Frequency Range	153~281kHz
Usable Sensitivity (20dB S / N, at 216kHz)	41dB
S / N Ratio (at 216kHz)	42dB
Image Rejection (at 270kHz)	40dB
IF Rejection (at 162kHz)	50dB
Distortion (at 216kHz)	1.5%
Frequency Response (Ref. 400Hz, at 216kHz)	100Hz : -3±4dB 4kHz : -12+6, -12dB

TAPE PLAYER

Wow & Flutter (JIS, WRMS / MTT-111N)	0.2%
Tape Speed (MTT-111N)	4.76cm / sec. +3 to -1%
S / N Ratio (MTT-212N)	Dolby OFF : 52dB Dolby B NR : 60.5dB Dolby C NR : 67dB
Distortion (MTT-118N)	2%
Frequency Response (Ref. 1kHz, MTT-256, -3dB)	250Hz~10kHz
Separation (MTT-141N)	35dB
Crosstalk (MTT-121N)	45dB

GENERAL

Power Supply	DC14.4V
Power Output / Impedance	14W / 4ohm
Pre Output Voltage / Impedance	1V / 10kohm
Semiconductors	29 IC's, 65 Transistors, 31 Diodes, 12 Zener Diodes
Dimension (W×H×D)	Chassis : 178×50×155 mm Nose : 188×58×22 mm
Weight	1.4kg

Note : Due to Continuing product improvement, specifications and designs are subject to change without notice.

In Case of Difficulty

If you encounter a problem, please review the items in the following checklist. This guide will help you isolate the problem if the unit is at fault. Otherwise, make sure the rest of your system is properly connected or consult your authorized Alpine dealer.

Initial Turn-on After Installation

Symptom/Symptôme/Síntoma	Cause and Solution
No function or display./Fonctions inopérantes ou pas d'affichage./La unidad no funciona ni hay visualización.	• Car's ignition is off. – If connected following instructions, the unit will not operate with the car's ignition off.
	• Improper power lead connections. – Check power lead connections.
	• Blown fuse. – Check the fuses on the battery leads; replace with the proper value if necessary.

Radio Mode

Symptom/Symptôme/Síntoma	Cause and Solution
Unable to receive stations./Impossible de recevoir les stations./Es imposible recibir emisoras.	• No antenna or open connection in cable. – Make sure the antenna is properly connected; replace the antenna or cable if necessary.
Unable to tune stations in the seek mode./Impossible d'accorder les stations en mode de recherche automatique./Es imposible sintonizar emisoras en el modo de búsqueda.	• You are in a weak signal area. – Make sure the tuner is in the DX mode. • If the area you are in is a primary signal area, the antenna may not be grounded and connected properly. – Check your antenna connections; make sure the antenna is properly grounded at its mounting location. • The antenna may not be the proper length. – Make sure the antenna is fully extended; if broken, replace the antenna with a new one.
Broadcast is noisy./Réception parasitée./La recepción es ruidosa.	• The antenna is not the proper length. – Extend the antenna fully; replace it if it is broken. • The antenna is poorly grounded. – Make sure the antenna is grounded properly at its mounting location.

Tape Mode

Output sounds dull./Sortie de son atténuée./El sonido se oye inestable.	• The tape head needs cleaning. – Clean the tape head. • Incorrect Dolby NR in use. – Check Dolby NR switch setting.

In Case of Difficulty

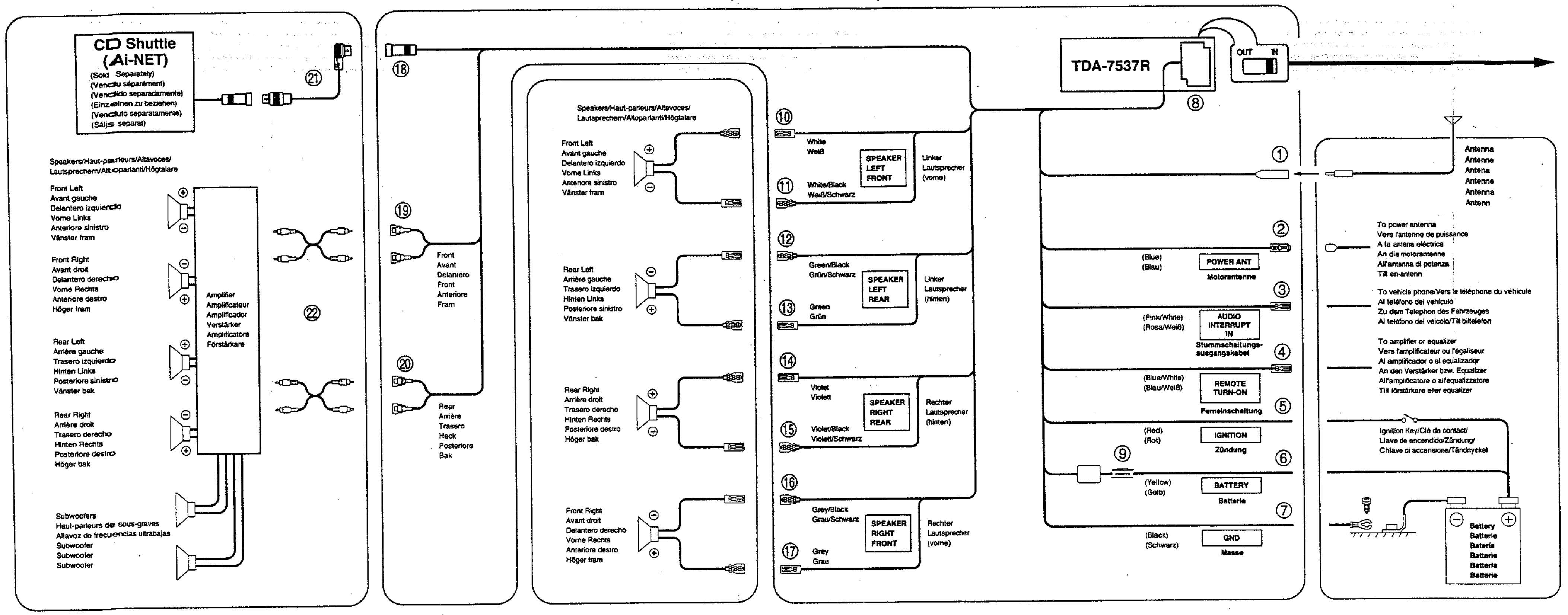
CD Shuttle Mode

Symptom/Symptom/Symptôme	Cause and Solution
CD Shuttle not functioning./Le changeur CD ne fonctionne pas./El cambiador de discos compactos no funciona.	• Out of operating temperature range +50°C (+120°F) for CD. – Allow the car's interior (or trunk) temperature to cool.
CD playback sound is wavering./Le son de lecture de CD est déformé./El sonido de reproducción de un disco compacto oscila.	• Moisture condensation in the CD Module. – Allow enough time for the condensation to evaporate (about 1 hour).
Unable to fast forward or backward./Avance rapide ou inversion impossibles./El disco no avanza ni retrocede.	• The CD has been damaged. – Eject the CD and discard it; using a damaged CD in your unit can cause damage to the mechanism.
Sound skips due to vibration./Pertes de son dues à des vibrations./El sonido salta debido a las vibraciones.	• Improper mounting of the CD Shuttle. – Securely re-mount the CD Shuttle. • Disc is very dirty. – Clean the disc. • Disc has scratches. – Change the disc.
Sound skips without vibration./Pertes de son non dues à des vibrations./El sonido salta sin haber vibraciones.	• Dirty or scratched disc. – Clean the disc; damaged discs should be replaced.
Single (8cm) disc does not play./Impossible de reproduire un CD de 8 cm./No es posible reproducir un disco sencillo (8 cm).	• Single CD adaptor is not used. – Attach a single CD adaptor (recommended by Alpine) to the single disc and insert into the CD magazine.

Indication for CD Shuttle

Indication/Indication/Indicación	Cause and Solution
- - - H	• Protective circuit is activated due to high temperature. – The indicator will disappear when the temperature returns to within operation range.
ERROR 01	• Malfunction in the CD Shuttle. – Consult your Alpine dealer. Press the magazine eject button and pull out the magazine. Check the indication. Insert the magazine again. If the magazine cannot be pulled out, consult your Alpine dealer.
	• Magazine ejection not possible. – Press the magazine eject button. If the magazine does not eject, consult your Alpine dealer.
ERROR 02	• A disc is left inside the CD Shuttle. – Press the EJECT button to activate the eject function. When the CD Shuttle finishes the eject function, insert an empty CD magazine into the CD Shuttle to receive the disc left inside the CD Shuttle.
NO MAGZN	• No magazine is loaded into the CD Shuttle. – Insert a magazine.
NO DISCS	• No indicated disc. – Choose another disc.

Connections/Connexions/Conexiones/Anschlüsse/Collegamenti/Anslutningar


CD Shuttle
(Ai-NET)
(Sold Separately)
(Vendu séparément)
(Vendido separadamente)
(Einzeln zu beziehen)
(Venduto separatamente)
(Säljs separat)
㉑
Speakers/Haut-parleurs/Altavoces/
Lautsprechern/Altoparlanti/Högtalare
Front Left
Avant gauche
Delantero izquierdo
Vorne Links
Anteriore sinistro
Vänster fram
Front Right
Avant droit
Delantero derecho
Vorne Rechts
Anteriore destro
Höger fram
Rear Left
Arrière gauche
Trasero izquierdo
Hinten Links
Posteriore sinistro
Vänster bak
Rear Right
Arrière droit
Trasero derecho
Hinten Rechts
Posteriore destro
Höger bak
Amplifier
Amplificateur
Amplificador
Verstärker
Amplificatore
Förstärkare
㉒
Subwoofers
Haut-parleurs de sous-graves
Altavoz de frecuencias ultrabajas
Subwoofer
Subwoofer
Subwoofer
⑱
⑲
Front
Avant
Delantero
Front
Anteriore
Fram
⑳
Rear
Arrière
Trasero
Heck
Posteriore
Bak
Speakers/Haut-parleurs/Altavoces/
Lautsprechern/Altoparlanti/Högtalare
Front Left
Avant gauche
Delantero izquierdo
Vorne Links
Anteriore sinistro
Vänster fram
Rear Left
Arrière gauche
Trasero izquierdo
Hinten Links
Posteriore sinistro
Vänster bak
Rear Right
Arrière droit
Trasero derecho
Hinten Rechts
Posteriore destro
Höger bak
Front Right
Avant droit
Delantero derecho
Vorne Rechts
Anteriore destro
Höger fram
⑩
White
Weiß
SPEAKER LEFT FRONT
Linker Lautsprecher (vorne)
⑪
White/Black
Weiß/Schwarz
⑫
Green/Black
Grün/Schwarz
SPEAKER LEFT REAR
Linker Lautsprecher (hinten)
⑬
Green
Grün
⑭
Violet
Violett
SPEAKER RIGHT REAR
Rechter Lautsprecher (hinten)
⑮
Violet/Black
Violett/Schwarz
⑯
Grey/Black
Grau/Schwarz
SPEAKER RIGHT FRONT
Rechter Lautsprecher (vorne)
⑰
Grey
Grau
TDA-7537R
OUT
IN
⑧
①
Antenna
Antenne
Antena
Antenne
Antenna
Antenn
②
(Blue)
(Blau)
POWER ANT
Motorantenne
To power antenna
Vers l'antenne de puissance
A la antena eléctrica
An die motorantenne
All'antenna di potenza
Till en-antenn
③
(Pink/White)
(Rosa/Weiß)
AUDIO INTERRUPT IN
Stummschaltungs-ausgangskabel
To vehicle phone/Vers le téléphone du véhicule
Al teléfono del vehículo
Zu dem Telephon des Fahrzeuges
Al telefono del veicolo/Till biltelefon
④
(Blue/White)
(Blau/Weiß)
REMOTE TURN-ON
Ferneinschaltung
To amplifier or equalizer
Vers l'amplificateur ou l'égaliseur
Al amplificador o al ecualizador
An den Verstärker bzw. Equalizer
All'amplificatore o all'equalizzatore
Till förstärkare eller equalizer
⑤
(Red)
(Rot)
IGNITION
Zündung
Ignition Key/Clé de contact/
Llave de encendido/Zündung/
Chiave di accensione/Tändnyckel
⑨
⑥
(Yellow)
(Gelb)
BATTERY
Batterie
⑦
(Black)
(Schwarz)
GND
Masse
Battery
Batterie
Batería
Batterie
Batteria
Batterie

Ai-NET DIN IN/OUT Select Switch
Caution:
In case of connecting the CD-Shuttle etc., be sure to set the switch to IN position.
When changing the position, make sure that the Power Switch is OFF.
The switch is set to IN position at the factory.

Commutateur de sélection Ai-NET DIN IN/OUT
Précaution:
En cas de connexion de la navette CD, etc... s'assurer de placer le commutateur sur la position IN.
Lors du changement de position, s'assurer que le commutateur d'alimentation est fermé (OFF).
Le commutateur est placé sur la position IN à l'usine.

Interruptor de selección de entrada/salida de Ai-NET (Ai-NET DIN IN/OUT)
Precaución:
En caso de conectar el CD Shuttle, etc... asegúrese de poner el interruptor en la posición IN.
Si cambia la posición asegúrese de que el interruptor de alimentación está apagado (OFF).
El interruptor ha sido ajustado en la fábrica a la posición IN.

Ai-NET DIN Eingangs-/Ausgangs-Wahlschalter (Ai-NET DIN IN/OUT)
Vorsicht:
Achten Sie beim Anschluß des CD-Wechslers o.ä. darauf, daß Sie den Schalter auf "IN"-Position (ein) stellen. Vergewissern Sie sich vor dem Ändern der Schalterposition stets, daß der Netzschalter ausgeschaltet (OFF) ist. Der Schalter wurde werksmäßig auf die Position "IN" (ein) gestellt.

Interruttore di selezione di entrata/uscita (IN/OUT) DIN Ai-NET
Precauzione:
Nel caso in cui collegate lo Shuttle CD, ecc., assicuratevi di collocare questo interruttore nella posizione IN. Se cambiate la posizione, assicuratevi che l'interruttore di accensione sia spento (OFF). L'interruttore viene collocato nella posizione IN in fabbrica.

Ai-NET DIN IN/OUT väljare
Varning:
Vid anslutning av en CD-växlare e.dyl. måste denna väljare sättas i läge IN. Stäng av strömmen innan väljarens inställning ändras. Väljaren har på fabriken förinställts på läge IN.

① **Antenna Receptacle**

② **Power Antenna Lead (Blue)**
When loaded with a power antenna, connect to the +B terminal of the power antenna.

③ **Audio Interrupt In Lead (Pink/White)**

④ **Remote Turn-On Lead (Blue/White)**
Connect this lead to the remote turn-on lead of your amplifier or signal processor.

⑤ **Switched Power Lead (Ignition) (Red)**
Connect this lead to an open terminal on the vehicle's fuse box or another unused power source which provides (+)12V only when the ignition is turned on or in the accessory position.

⑥ **Battery Lead (Yellow)**
Connect this lead to the positive (+) post of the vehicle's battery.

⑦ **Ground Lead (Black)**
Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using the sheet metal screw provided.

⑧ **Pin-Plug Assembly**

⑨ **Fuse Holder (10A)**

⑩ **Left Front (+) Speaker Output Lead (White)**

⑪ **Left Front (–) Speaker Output Lead (White/Black)**

⑫ **Left Rear (–) Speaker Output Lead (Green/Black)**

⑬ **Left Rear (+) Speaker Output Lead (Green)**

⑭ **Right Rear (+) Speaker Output Lead (Violet)**

⑮ **Right Rear (–) Speaker Output Lead (Violet/Black)**

⑯ **Right Front (–) Speaker Output Lead (Grey/Black)**

⑰ **Right Front (+) Speaker Output Lead (Grey)**

⑱ **Ai-NET Input/Output Connector**
Connect this to the Ai-NET Input/Output connector of another Ai-NET compatible unit (purchased separately).

⑲ **Front Output RCA Connectors**
RED is right and WHITE is left.

⑳ **Rear Output RCA Connectors**
RED is right and WHITE is left.

㉑ **Ai-NET Cable**

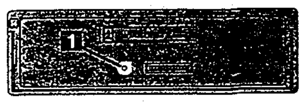
㉒ **RCA Extension Cable (Sold Separately)**

To prevent external noise from entering the audio system.

- Locate the unit and route the leads at least 10 cm away from the car harness.
- Keep the battery power leads as far away from other leads as possible.
- Connect the ground lead securely to a bare metal spot (remove the coating if necessary) of the car chassis.
- If you add an optional noise suppressor, connect it as far away from the unit as possible. Your Alpine dealer carries various Alpine noise suppressors, contact them for further information.
- Your Alpine dealer knows best about noise prevention measures so consult your dealer for further information.

Basic Operation

Initial System Start-Up



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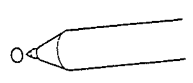
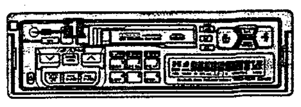


When operating the unit for the first time after installation or after the vehicle's battery has been disconnected and reconnected, set the volume level to its minimum, then remove the detachable front panel. Press the Reset switch with a ball-point pen or any other pointed object.

Turning Power On and Off



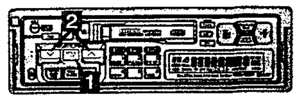
1

Press to turn on the unit.

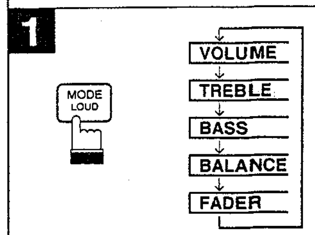
Note: The unit can be turned on by pressing any button except the eject ≜ button or by inserting a cassette tape.

Press again to turn off the unit.

Adjusting Volume/Treble/Bass/Balance/Fader



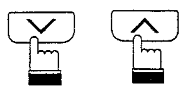
1



Press repeatedly to choose the desired mode.

Note: If the ⌄ or ⌃ button is not pressed in 5 seconds after selecting the TREBLE, BASS, BALANCE and FADER modes, the unit automatically returns to the VOL mode.

2



Press these buttons until the desired sound is obtained in each mode.

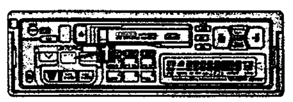
Notes:

- These buttons have a "Dual Speed" function. Pressing the buttons hard will change the level faster.
- The Bass and Treble setting for each source (FM, MW, LW, TAPE and CD) are automatically memorized. These settings remain until you manually change them.
- In case that the Equalizer is connected, the Bass and Treble are adjusted on the Equalizer.

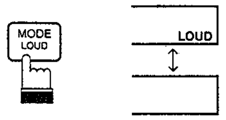
Basic Operation

Turning Loudness On/Off

Loudness introduces a special low- and high-frequency emphasis at low listening levels to compensate for the ear's decreased sensitivity to bass and treble sound.



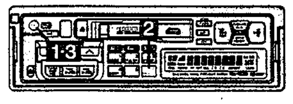
1



Press for at least 2 seconds to activate or deactivate the loudness mode.

Note: When an optional Alpine Audio Processor (Equalizer or Divider) is connected to the TDA-7537R, the Loudness mode is unfunctional.

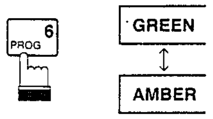
Changing Lighting Colour



1

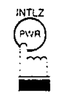
Press the PWR button for at least 3 seconds.

2



Press the Preset 6 button to change the lighting colour between green and amber.

3



Press the PWR button to set the lighting colour.

Sound Guide Function

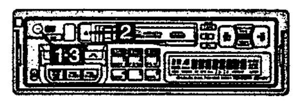
Very convenient function that informs operating conditions with sound tones when you press buttons.

"Pi" tone: Warning tone, for ⌃ pressed fully.

"Po" tone: For normal button/(⊣)/⌃ pressed halfway./ ⌄ pressed fully.

"Pu" tone: For normal button/(≜)/⌄ pressed halfway.

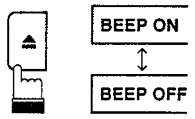
"Bu" tone: For buttons not accepted.



1

Press for more than 3 seconds.

2



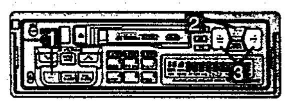
Press for more than 3 seconds, and the display shows "BEEP ON". Pressing the button again shows "BEEP OFF" and the sound tone does not emit if buttons are pressed.

3

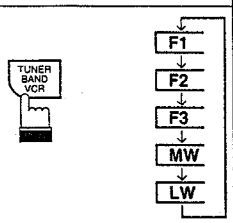
Press the button to activate the normal mode.

Radio Operation

Manual Tuning

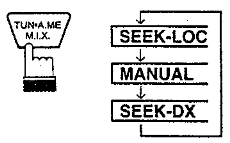


1



Press repeatedly until the desired radio band is displayed.

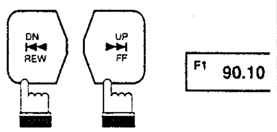
2



Press repeatedly until "MANUAL" is displayed.

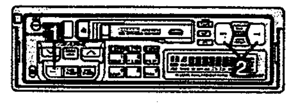
Note: Initial mode is SEEK-DX.

3

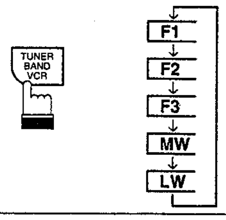


Press the DN or UP button to move downward or upward one step respectively until the desired station frequency is displayed.

Automatic Seek Tuning

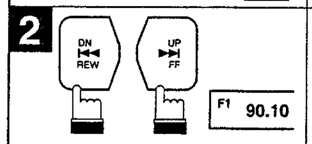


1



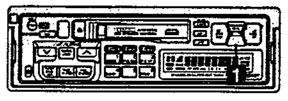
Press repeatedly until the desired radio band is displayed.

2

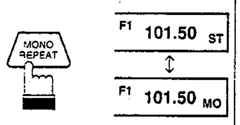


Press DN button or UP button for more than 0.5 seconds to automatically seek a station downward or upward respectively.

Mono/Stereo Switching



1



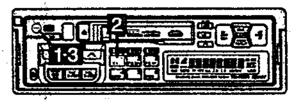
"ST" indicator appears when a stereo station is tuned in.

Press to switch from the stereo mode to the monaural mode to reduce the noise level of noisy stereo broadcast due to weak signal. In the monaural mode, the MO indicator appears. Press again to return to the stereo mode.

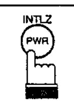
Radio Operation

Adjusting FM Signal Level

If the difference in volume levels between the FM station and the tape player is great, you can adjust the FM signal level to make the difference smaller.

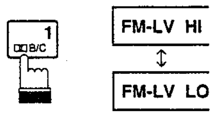


1



Press the PWR button for at least 3 seconds.

2

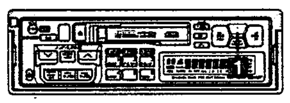


Press to select the desired signal level.

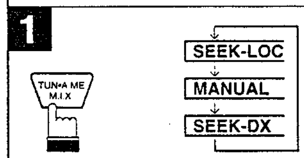
3

Press to preset the FM signal level in memory and deactivate the adjusting mode.

Radio Station Auto-Seek Sensitivity



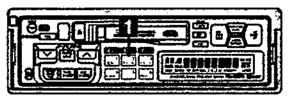
1



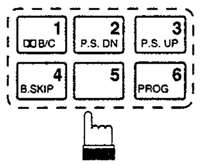
Press the button to illuminate the DX indicator in the display. With the DX mode activated. both strong and weak stations will be tuned in the Auto-Seek operation.

Press the button again to return to the local mode. The DX indicator will turn off and only strong radio stations will be tuned.

Manual Storing of Station Presets



1



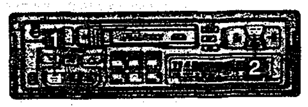
1. Tune in the desired radio station you wish to store in the preset memory.
2. Press any one of the preset buttons (1 through 6) for at least 2 seconds until the frequency display blinks.
3. Press the preset button into which you wish to store the station while the display is blinking (within 5 seconds). The display changes from blinking to steady lighting indicating that the station has been memorized. The preset number is also displayed.
4. Repeat the procedure to store 5 other stations onto the same band. Use this procedure for other bands.

A total of 30 stations can be stored in the preset memory (6 stations for each band; FM1, FM2, FM3, MW, LW). The RDS stations can be preset in the FM1, FM2 and FM3 bands only.

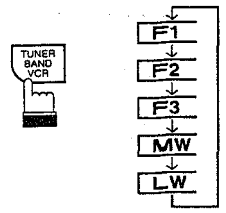
Note: If a preset memory has already been set in the same preset location, it will be cleared and the new station will be memorized.

Radio Operation

Automatic Memory of Station Presets

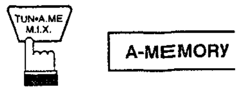


1



Press until the desired radio band is displayed.

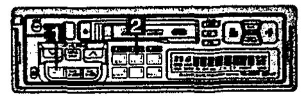
2



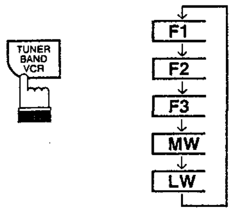
Press for at least **2** seconds. The display *shows "A-MEMORY" for a second then* changes the radio frequency during the auto memory operation.
The tuner will automatically seek and store 6 strong stations in the selected band in order of signal strength.
When the automatic storing has been completed, the tuner goes to the station stored in the preset location No. 1.

Note: If no stations are stored, the tuner will return to the original station you were listening to before the auto storing procedure began.

Tuning to Preset Stations

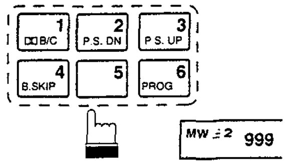


1



Press repeatedly until the desired band is displayed.

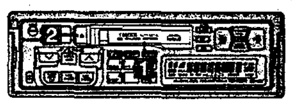
2



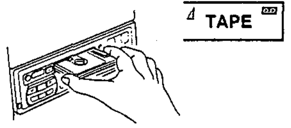
Press the station preset button that has your desired radio station in memory. The display shows the preset number, band and frequency of the station.

Cassette Player Operation

Inserting/Ejecting Cassette Tape

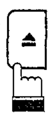


1



Insert a cassette tape into the slot with the open side facing right. When the cassette is loaded, the player automatically starts tape playback and indicates "TAPE" in the display.

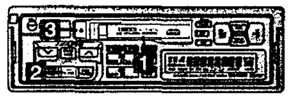
2



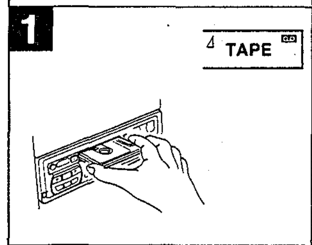
Press when you want to eject the cassette tape.

Notes:
1. When power is turned off or the front panel is removed, the full-logic mechanism will automatically switch to the *PAUSE mode. This protects the tape from* being deformed by the pinch-rollers if left long periods.
2. Auto Metal
   When a metal cassette tape is inserted, the player automatically adjusts to the equalization for metal or any other high bias tape for optimum sound.

Normal Play and Pause

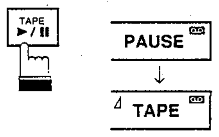


1



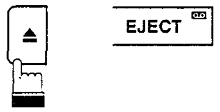
Insert a cassette (or press the TAPE ►/II button to switch from the tuner or CD Shuttle mode if a cassette is already inside the tape player). The player begins playback. The display shows "TAPE" and "⊿" or "⊽" during tape playback to show the tape side being played. When the end of the tape is reached, the unit automatically reverses the tape to play the other side of the tape.

2



Press to pause tape play. Press again to resume playback.

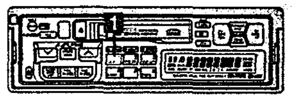
3



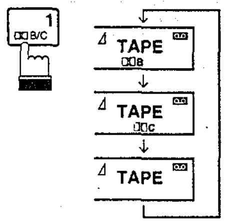
Press to stop the tape play and eject the cassette. The tape-direction indicator disappears.

Cassette Player Operation

Dolby B/C NR (Noise Reduction)



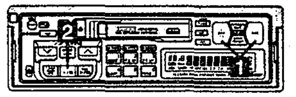
1



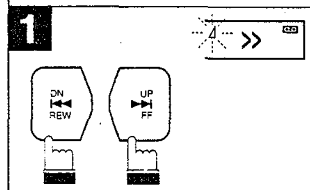
Press the Dolby NR (DD) button in the tape mode to select the Dolby B NR or C NR to play a Dolby B NR or C NR encoded tape respectively. The DD B or DD C indicator appears to show your selection and the noise level becomes low.

To deactivate the Dolby NR mode, press the button until the DD B and DD C indicators disappear.

Fast Forward and Rewind

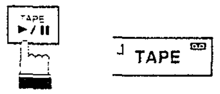


1



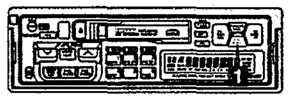
Press the REW or FF button during tape play to fast rewind or forward the tape respectively. The tape side indicator (⊿ or ⊽) blinks and >> or << moves.
When the end of the tape is reached in the rewind mode, the player stops automatically and begins playing from the beginning of the same side. When the end of the tape is reached in the fast forward mode, the player stops automatically and begins playing from the beginning of the opposite side.

2

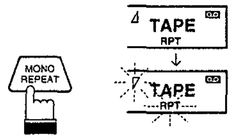


Press to stop fast rewinding or forwarding to resume tape play.
The tape side indicator changes to steady lighting.

Repeat Play



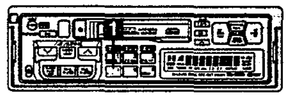
1



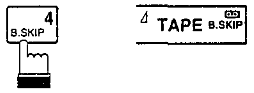
Press to play back repeatedly the current programme being played. The RPT indicator appears and the programme will be played repeatedly.

Press to stop the repeat play. The RPT *indicator disappears.*

Blank Skip (B. SKIP)



1

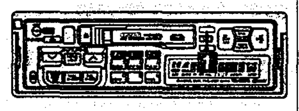


Press during tape play to skip over blank portions of the tape lasting 15 seconds or longer. "B.SKIP" appears on the display.

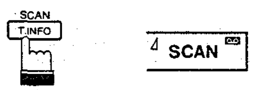
Press to cancel the blank skip mode. "B.SKIP" disappears from the display.

Cassette Player Operation

Scanning Programmes



1

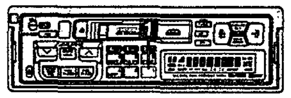


Press for more than **2** seconds to play the first 10 seconds of each programme on the tape. *SCAN appears on the display.*

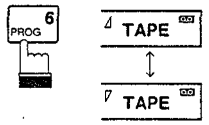
Press for more than **2** seconds to cancel the scanning when the desired programme is found.

Note: The SCAN cannot detect blank sections of less than 4 seconds.

Manual Reverse

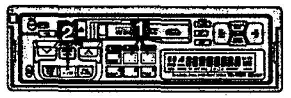


1

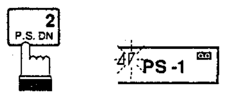


Press during tape play to change the tape *direction to play the other side of the tape. The* tape side indicators (⊿ and ⊽) change to show which side of the cassette is being played.

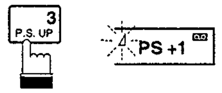
Programme Sensor (P.S.)



1



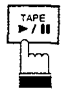
Press the P.S. DN button once to return to the beginning of the current selection being played. If you wish to return to a selection further back, press repeatedly until the number of selections you would like to skip is shown in the display.
The display will show PS-1 with the first press and will increase by one with each successive press up to PS-9. The tape indicator will blink showing the direction of your search.



Press the P.S. UP button once to advance to the beginning of the next selection. If you wish to advance to a selection further ahead, press repeatedly until the number of selections you would like to skip is shown in the display.
The display will show PS+1 with the first press and will increase with each successive press up to PS+9. The tape indicator will blink showing the direction of your search.

The tape direction indicator blinks during *searching operation.*

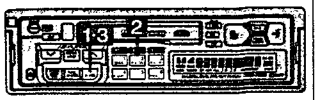
2



To stop the programme searching, press the tape ►II button.

Notes:
- The programme sensor feature is functional in the tape play mode only.
- You can advance to the 9th (max.) programme or return to the 8th (max.) programme.

CD Shuttle Operation

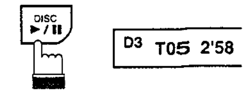


Controlling CD Shuttle (Optional)

If an optional Alpine 6-disc CD Shuttle is connected to the Ai-NET connector of the TDA-7537R through an Ai-NET adaptor, you can control the CD Shuttle using the TDA-7537R.
You can connect and operate multiple Alpine CD Shuttles when these are connected through the Multi-Changer Switching device(s) (KCA-400C) to the TDA-7537R. See the Multi-Changer Selection section on page 56 for selecting the CD Shuttles.

Note: The controls on the TDA-7537R for the CD operation are operative only when the CD Shuttle is interconnected with the TDA-7537R.

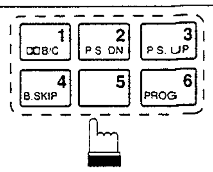
1



The display example shows when playing the Track 5 on the Disc 3.

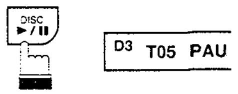
Press to activate the connected CD Shuttle. The display shows the disc number and track number.

2

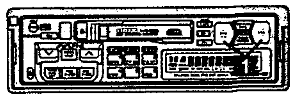


Press the buttons to select the desired disc loaded in the CD Shuttle.

3

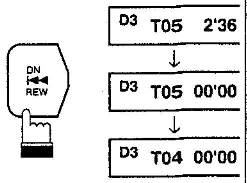


Press to pause CD play. The display shows "PAU".
To resume CD play, press again.
The PAU indicator disappears.

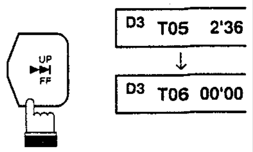


Music Sensor (M.S.) Skip

1

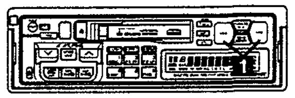


Momentarily press the DN ⏮ button once to return to the beginning of the current track. If you wish to return to the beginning of a track further back, repeatedly press until you reach the desired track. (The display example shows when you are playing the track No. 5 of the disc 3.)



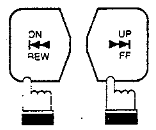
Press the UP ⏭ button once to advance to the beginning of the next track. If you wish to advance to a track further ahead, press repeatedly until the desired track is reached.

Note: The music sensor feature is functional in the play or pause mode.



Fast Forward and Backward

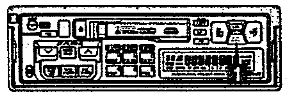
1



Press and hold the ⏮ DN or UP ⏭ button to quickly move backward or forward respectively until you reach the desired portion.

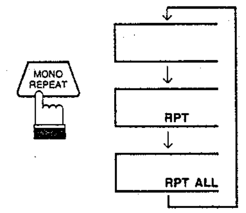
Note: This feature works only in the CD playback mode.

CD Shuttle Operation



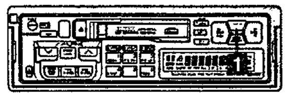
Repeat Play on Single Track or Entire Disc

1



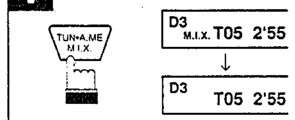
Press to display "RPT" or "RPT ALL" to play back repeatedly the current track being played or the entire disc selected.

Note: Single track cannot be repeated during M.I.X. play.



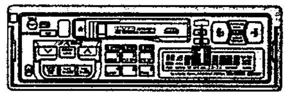
M.I.X. (Random) Play

1



Press during CD play or in the pause mode until the M.I.X. indicator appears. The display shows the disc number, elapsed time, "M.I.X." and track number being played. The tracks on the disc will be played back in a random sequence.
After all the tracks on the disc have been played back, the player loads the next disc and begins a random sequence play on the next disc.

Press the button again until the M.I.X. indicator disappears to cancel the M.I.X. play.

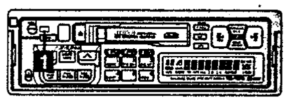


Disc Scan

1

Press for more than 2 seconds to play the first 10 seconds of each track on the disc. The display shows the disc number, elapsed time, "SCAN", and track number being played during scan play.

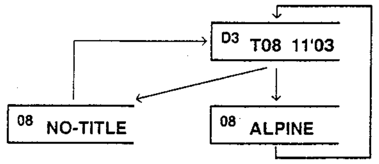
Press again to cancel scan play.



To display CD Titles

1

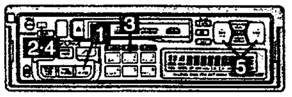
Titles can be displayed for CDs with titles entered.
(Refer to page 50 to title the disc.)
Press the button in the CD mode.
The display will be switched each time the switch is pressed.



Title not entered/
Titre non mémorisé/
Titulo sin memorizar

Title entered/
Titre mémorisé/
Título memorizado

CD Shuttle Operation



Titling Disc

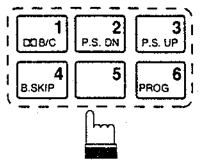
1

Press to activate the CD mode.

2

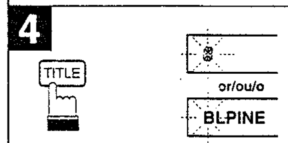
Press to select the disc titling mode. (Refer to page 48.)

3



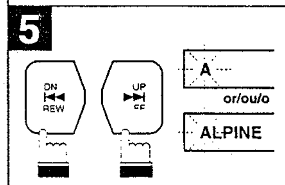
Press to select the desired disc to be titled.

4

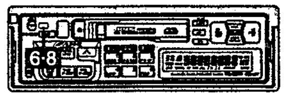


Press for at least 2 seconds. The first digit blinks.

5

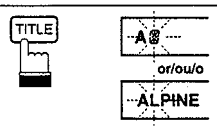


Press repeatedly to select the desired letter/numeral/symbol available for naming ("A" for example).



Titling Disc (Continued)

6

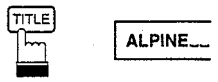


Press to store the first character. The first character will stop blinking and the display will automatically advance to the next character. When that character begins to blink, you may choose the next letter or symbol of your title.

7

Repeat the steps 5 and 6 above to complete the titling. The 8 digits should be filled for the disc title.

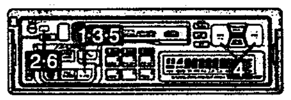
8



Press to record the title.

Notes:
- When the memory capacity for the disc titles is used up, the display shows "FULL DATA" to indicate that no more title can be memorized. Refer to the Owner's Manual of the CD shuttle interconnected for information about how many discs you can title.
- The CD titles stored in memory will be erased when the Ai-NET cable to the CD Shuttle is disconnected.

CD Shuttle Operation



Erasing Disc Title

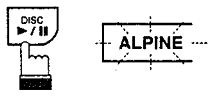
1

Press to activate the CD mode.

2

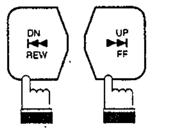
Press to select the disc titling mode. Then press for at least 2 seconds.

3



Press for at least 3 seconds to activate the title erasing mode. The title in the display will blink, for example "ALPINE."

4



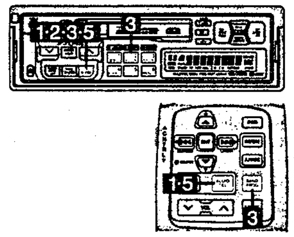
Press repeatedly until the disc title you want to erase is displayed.

5

Press for at least 3 seconds to erase the disc title displayed.

6

Press for at least 2 seconds to cancel the disc title erasing mode.



(optional/en option/opcional)

Multi-Changer Selection

You can connect and operate 2 or more (maximum 6) Alpine CD Shuttles with the Ai-NET function when these are connected through the Multi-Changer Switching device (KCA-400C) to the TDA-7537R. If you use 1 Switching device, you can connect up to 4 CD player/Shuttles. If you use 2 Switching devices, you can connect up to 6 CD player/Shuttles.

1

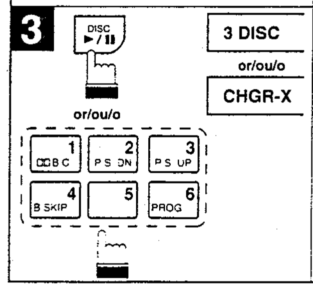
Press the DISC button on the TDA-7537R to activate the CD mode.

Press the AUDIO SEL button on the Remote Controller (1101) (optional) to activate the CD mode. Proceed to Step 3 below to select the desired player/changer.

2

Press the DISC button on the TDA-7537R for at least 3 seconds to activate the CD Shuttle Selection mode.

3

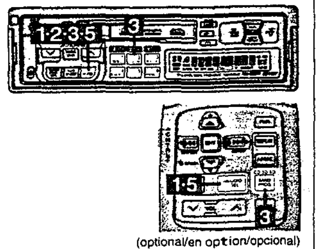


The CD Shuttle Selection mode remains active for 5 seconds after Step 2 is performed. During this time, press the DISC button on the TDA-7537R to select the 3-CD changer. Press the Preset buttons (1 through 6) to select the desired CD changer.
The display shows the selected player/changer number.

Note: If the selected player/changer is not being connected, the display shows "NO CHGR-X."

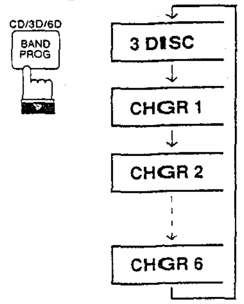
CD Shuttle Operation

Multi-Changer Selection (Continued)



(optional/en option/opcional)

3



Press the BAND/PROG button on the Remote Controller (1101) until the desired player/changer indicator appears on the display.

4

To operate the selected player/changer, see "CD Shuttle Operation" section, page 42 – 58.

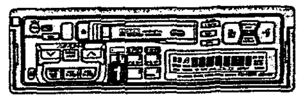
5

Press the DISC button on the TDA-7537R for at least 3 seconds to deactivate the CD Shuttle Selection mode.

Press the AUDIO SEL button on the Remote Controller to select other audio sources.

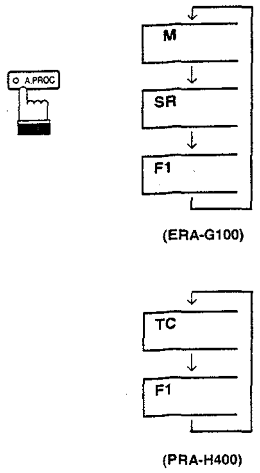
Audio Processor Operation

Activating Equalizer/Divider (optional)



If an optional Alpine Equalizer (such as ERA-G100) or Divider (such as PRA-H400) is Ai-NET connected to the TDA-7537R, you can operate the Equalizer or Divider from the TDA-7537R and Remote Controller 1101.

1



Press repeatedly to activate the desired equalizer mode or the Divider mode. In the audio source mode, the Equalizer/Divider mode is deactivated and other audio source is activated.

Note: Refer to the Owner's Manual for the ERA-G100 or PRA-H400 for operations.

Press to deactivate the equalizer or divider mode.

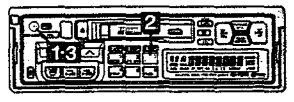
Notes:

- The A. PROC (Audio Processor), DEFEAT, M/P (Maker's/Private) and EFFECT buttons are operable only when an optional audio processor is Ai-NET connected with the TDA-7537R.
- When an external audio processor is connected to the TDA-7537R and activated, the TDA-7537R's tone circuit will be automatically bypassed.

RDS (Radio Data System)

The RDS (Radio Data System) is a radio information system using the 57 kHz subcarrier of regular FM broadcast. The RDS allows you to receive a variety of information such as traffic information, station names, and to automatically re-tune to a stronger transmitter that is broadcasting the same programme.

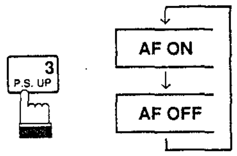
Setting RDS Reception Mode and Receiving



1

Press for at least 3 seconds.

2



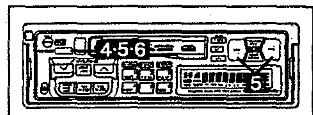
Press repeatedly to select the desired AF OFF or AF ON mode.

Note: Use the AF OFF mode when automatic retuning is not required.

3

Press to activate the selected mode.

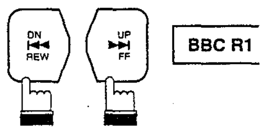
Setting RDS Reception Mode and Receiving (Continued)



4

Press to activate the *RDS* mode.

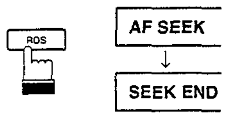
5



Press the DN or UP button to tune in the *desired RDS station.*

When the station signal being received has become weak;

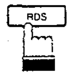
A. In the AF ON mode the unit automatically re-tunes to a stronger station that carries the same programme.



B. In the AF OFF/AF ON mode

Press for more than 2 seconds to have the unit automatically search for a stronger station in the AF (Alternative Frequencies) list.
If there is no AF station, the display shows "SEEK END."

6

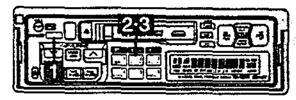


Press again to deactivate the RDS mode.

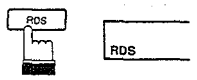
Note: You can tune in an RDS station while you are listening to cassette play. Choose your desired station in 5 seconds after the step 4 above.

RDS (Radio Data System)

Recalling Preset RDS Stations

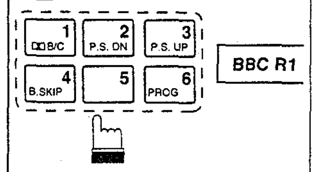


1



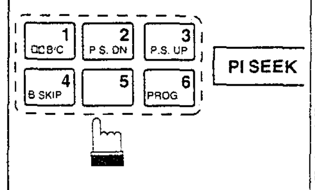
Press to activate the RDS mode.

2



Press the preset location button in which your desired RDS station is preset. If the preset station's signal is weak, the unit automatically searches and tunes to a *stronger station* in the AF (Alternative Frequencies) list.

3

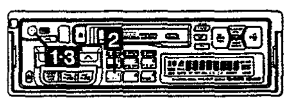


If the preset station and the stations in the AF list cannot be received:

Press the same preset location button again to search again for a station in the PI (Programme Identification) list.
If there are still no stations receivable in the area, the unit displays the frequency of the *preset station and the preset indicator* disappears. If the signal level of the Regional (Local) station being tuned becomes too weak to receive, press the same preset location button to tune in a Regional station in other district.

Note: For presetting the RDS stations, refer to the Radio Operation section. The RDS *stations can be preset in the* F1, F2, F3 bands only.

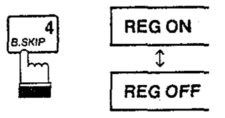
Receiving RDS Regional (Local) Stations



1

Press for at least 3 seconds.

2



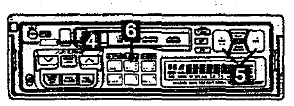
Press to turn on or off the REG mode.
In the REG ON mode, the unit automatically keeps receiving the *related local RDS station.*

3

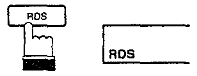
Press to activate the selected mode.

RDS (Radio Data System)

Receiving RDS Regional (Local) Stations (Continued)

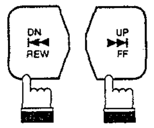


4



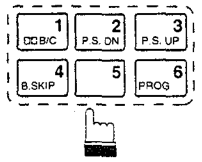
Press to activate the RDS mode.

5



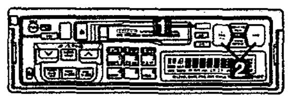
Press to tune in the desired local (regional) RDS station.

6

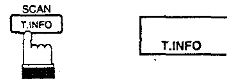


Press repeatedly the preset location button corresponding to your desired station during *reception of a Regional station* to search for a receivable Regional station. Each pressing tunes in another receivable Regional station.

Receiving Traffic Information

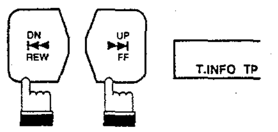


1



Press to display the T.INFO indicator.

2



Press the DN or UP button to select your desired traffic information station. When a traffic information station is tuned in, the TP indicator lights up.

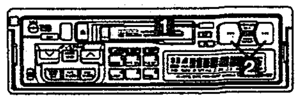
Traffic information is heard only when it is being broadcast. If traffic information is not being broadcast, the unit is set in the standby mode. When a traffic information broadcast begins, the unit automatically receives it, the display shows "TRF-INFO", and within 5 seconds the PS being received appears.

When traffic information broadcast is over, the unit will automatically set in the standby mode .

Notes:

- If the traffic information broadcast signal falls below a certain level, the unit remains in the receiving mode for 1 minute. If the *signal remains below a certain level for* over 1 minute, the unit is set in the standby mode for the traffic information broadcast.
- If you do not want to listen to *the traffic* information being received, lightly press the T. INFO button to skip that traffic information message. The T. INFO mode will remain in the ON position to receive the next traffic information message.

RDS (Radio Data System)



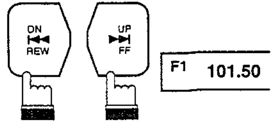
Receiving Traffic Information While Playing Cassette or Radio

1

SCAN
T.INFO
T.INFO

Press until the T.INFO indicator appears.

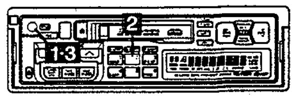
2


DN
REW
UP
FF
F1 101.50

Press to select a traffic information station if necessary.

- When a traffic information broadcast starts, the unit automatically mutes the cassette tape or the regular FM broadcast.
- When the traffic information broadcast finishes, the unit automatically returns to the original source play before the traffic information broadcast began.
- **When traffic information stations cannot be received:**
  In the tuner mode:
  When the TP signal can no longer be received, an alarm will be sounded after 1 minute.
  In the tape mode:
  When the TP signal can no longer be received. the traffic information station of another frequency will be selected automatically.

Note: The receiver is equipped with the EON (Enhanced Other Networks) function in order to keep track of additional alternative frequencies to the AF list. If the station being received does not broadcast the traffic information. the receiver automatically tunes in the related station that broadcasts the traffic information when it occurs.

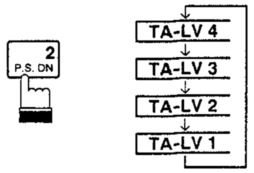


Presetting Volume Level for Traffic Information

1

Press for at least 3 seconds.

2

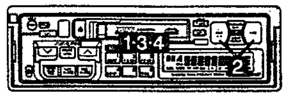

2
P.S. DN
TA-LV 4
TA-LV 3
TA-LV 2
TA-LV 1

Press until the desired volume level is obtained.

3

Press again to preset the volume level for the traffic information listening.

RDS (Radio Data System)



PTY Tuning

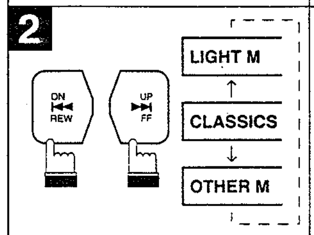
1

Press to activate the PTY mode.
The PTY (Programme Type) of the station being currently received will be displayed for 5 seconds.

- If there is no receivable PTY broadcast, "NONE" will be displayed for 5 seconds.
- If no RDS station can be received, the display shows "NO RDS".

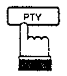
Note: If no button is pressed within 5 seconds after pressing the PTY button, the PTY mode will be automatically cancelled.

2


DN
REW
UP
FF
LIGHT M
CLASSICS
OTHER M

Press within 5 seconds to choose the desired programme type while the PTY programme type is being displayed.

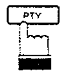
3



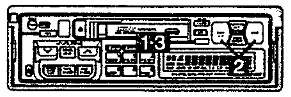
The tuner starts searching for a station when the PTY button is pressed within 5 seconds after selecting the PTY programme type. The chosen programme type indicator blinks during searching and lights when a station is found.

If no station is found. "NO PTY" will be displayed for 5 seconds.

4

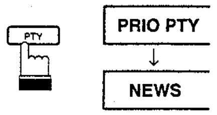


Press for 2 seconds to cancel the PTY mode.



The PRIORITY PTY function is a function which allows a previous setting of a program type such as music category. news, etc. and allows you to listen to a program belong to the program type by automatically interrupting it into the program you are currently listening when the program begins in a broadcasting with your unit set to a mode other than the LW/ MW.

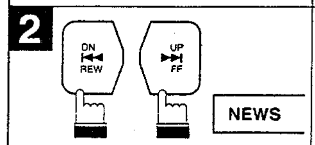
1


PTY
PRIO PTY
NEWS

Press for 2 seconds to activate the PRIORITY PTY mode.
"PRIO PTY" is displayed for 2 seconds and then the program type for 5 seconds. (Initial setting is "NEWS".)

Note: If no button is pressed within 5 seconds after pressing the PTY button, the PRIORITY PTY mode is automatically cancelled.

2


DN
REW
UP
FF
NEWS

Press the DN or UP button within 5 seconds for which "NEWS" is being displayed to choose a desired programme type, and then press the PTY button for 2 seconds. The PRIORITY PTY function will activate.

3

Press the button for 2 seconds to activate the PRIORITY PTY mode again.

- To change the program category. perform the step 2.
- To disable the PRIORITY PTY function, press the button for less than 2 seconds.

Note: In the PRIORITY PTY function differing from the T. INFO function. the sound volume does not increase during operation.

Disassembly Instructions

1. Removal of Nose Unit

(1) Refer to the Owner's Manual (Part No. 68P60141W82).

2. Removal of Front Escutcheon

(1) After removal of Bracket Handle and Top Cover, remove six Hooks (A) as shown in Figure 1.

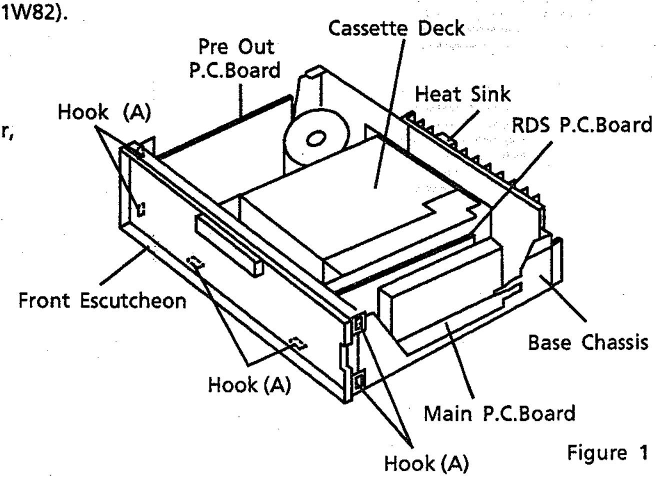

Cassette Deck
Pre Out
P.C.Board
Heat Sink
Hook (A)
RDS P.C.Board
Front Escutcheon
Base Chassis
Hook (A)
Main P.C.Board
Hook (A)

Figure 1

3. Removal of Cassette Deck

(1) Remove the Hook (B) as shwon in Figure 2.
(2) Remove three screws marked "○" as shown in Figure 2.
(3) Disconnect one Connector from the Cassette Deck.

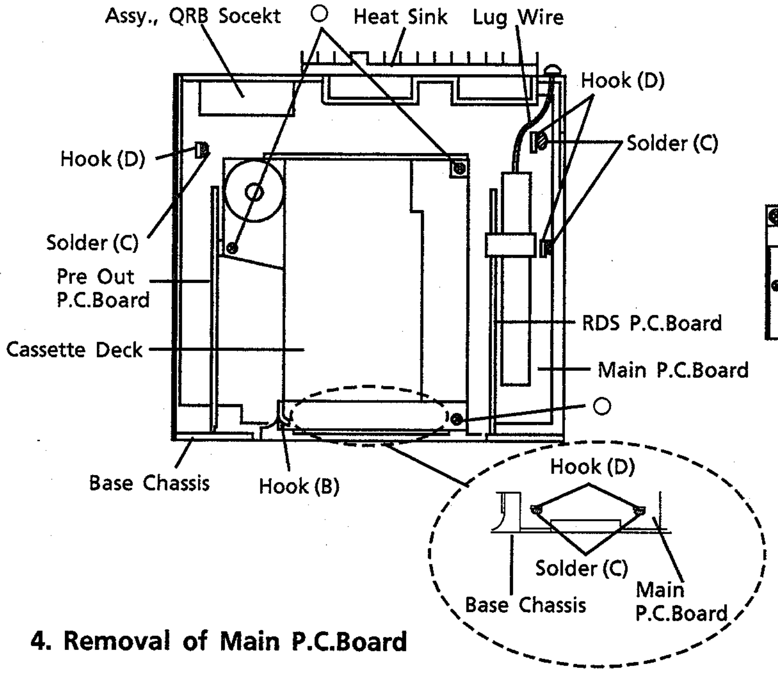

Assy., QRB Socekt
○
Heat Sink
Lug Wire
Hook (D)
Hook (D)
Solder (C)
Solder (C)
Pre Out
P.C.Board
RDS P.C.Board
Cassette Deck
Main P.C.Board
○
Base Chassis
Hook (B)
Hook (D)
Solder (C)
Base Chassis
Main
P.C.Board

Figure 2

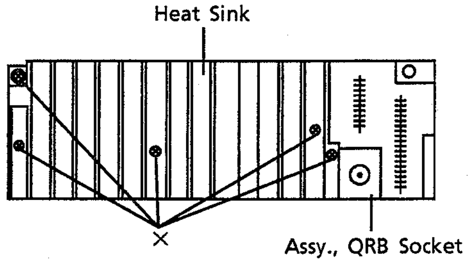

Heat Sink
×
Assy., QRB Socket

Figure 3

4. Removal of Main P.C.Board

(1) Remove the Solder (C) and five Hooks (D) as shown in Figure 2.
(2) Remove five screws marked "×" as shown in Figure 3.
(3) Disconnect all connectors from the Main P.C.Board.
(4) Main P.C.Board with RDS, Pre Out P.C.Board can be removed completely.

5. Removal of Front P.C.Board

(1) After removal of Nose Unit, remove four screws marked "△" and three Hooks (E) as shown in Figure 4.
(2) Remove two Hooks (F) as shown in Figure 4.

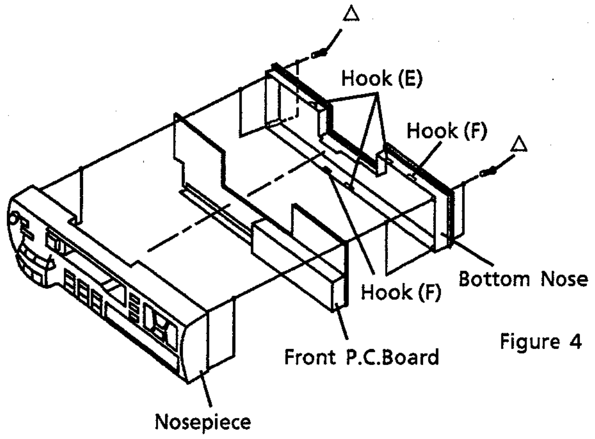

△
Hook (E)
Hook (F)
△
Bottom Nose
Hook (F)
Front P.C.Board
Nosepiece

Figure 4

Adjustment Procedures

1. FM SECTION

(1) Dummy Antenna Circuit

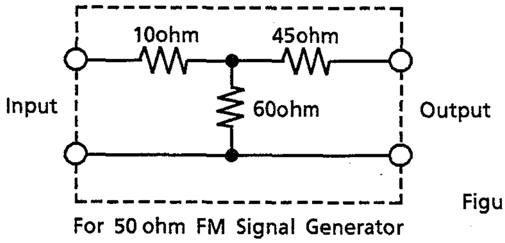

10ohm
45ohm
Input
60ohm
Output
For 50 ohm FM Signal Generator

Figure 5

(2) Connections

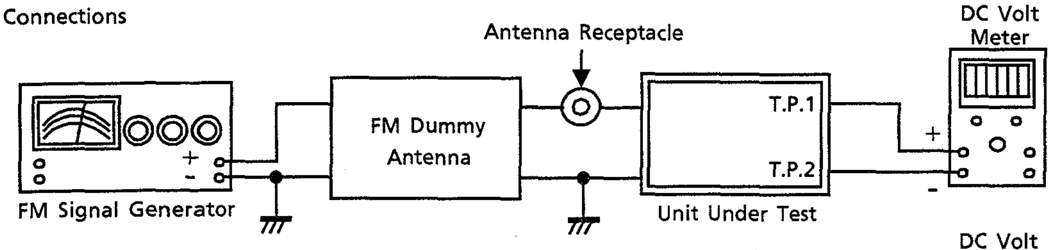

Antenna Receptacle
DC Volt Meter
FM Dummy Antenna
T.P.1
T.P.2
+
-
FM Signal Generator
Unit Under Test

Figure 6

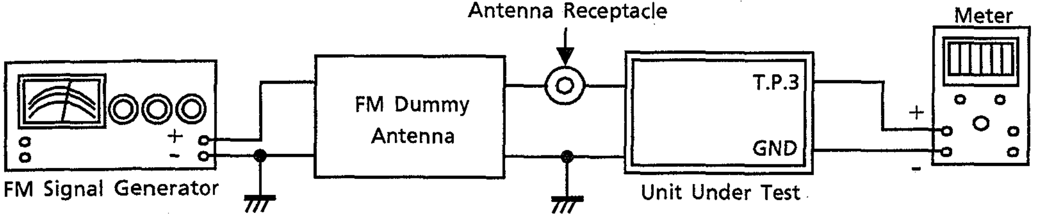

Antenna Receptacle
DC Volt Meter
FM Dummy Antenna
T.P.3
GND
+
-
FM Signal Generator
Unit Under Test

Figure 7

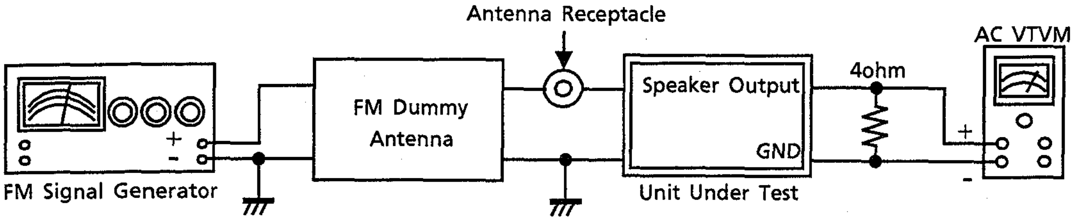

Antenna Receptacle
AC VTVM
FM Dummy Antenna
Speaker Output
GND
4ohm
+
-
FM Signal Generator
Unit Under Test

Figure 8

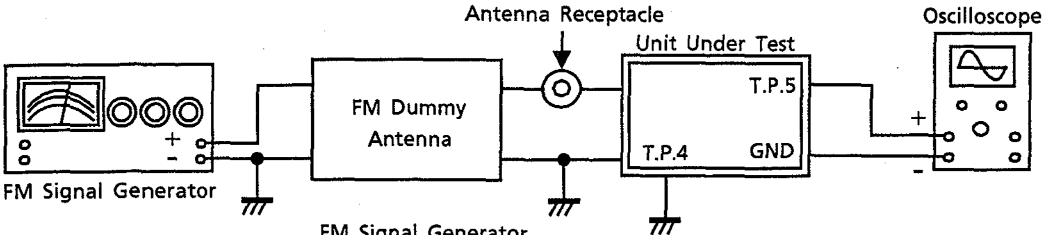

Antenna Receptacle
Unit Under Test
Oscilloscope
FM Dummy Antenna
T.P.5
T.P.4
GND
+
-
FM Signal Generator

Figure 9

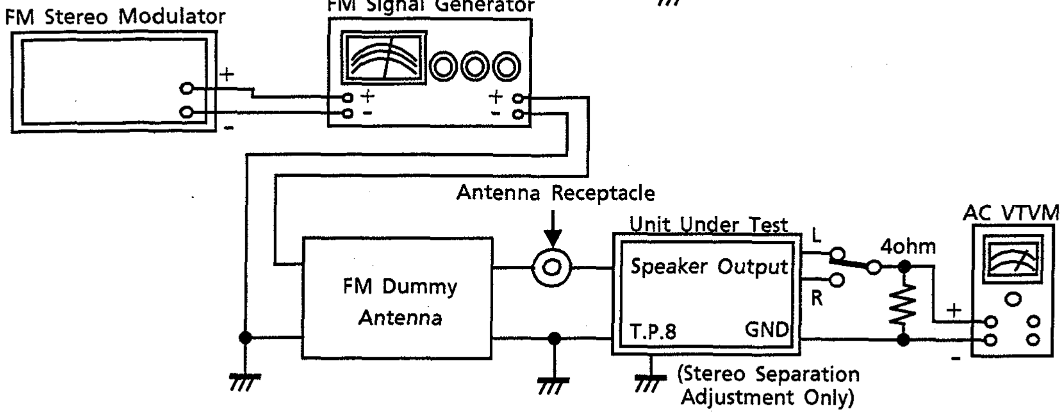
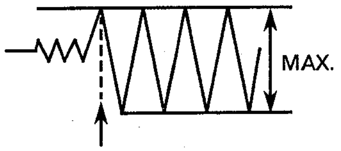

FM Stereo Modulator
FM Signal Generator
+
-
Antenna Receptacle
Unit Under Test
AC VTVM
FM Dummy Antenna
Speaker Output
T.P.8
GND
L
R
4ohm
(Stereo Separation Adjustment Only)

Figure 10

(3) Control Settings

Power Switch	ON
Fader Control	Center Position
Balance Control	Center Position
Treble / Bass Control	Center Position
Band Switch	FM
Others	OFF

(4) Adjustment Procedures

Step	Description		Connection	Signal Generator	Dial Control	Test Point	Adjustment
1	IF Adjustment		Figure 6	98.1MHz, 72dB (Mod. OFF)	98.1MHz	T.P.1 T.P.2	Adjust L2101 for 0±15mV.
2	Signal Meter Adjustment		Figure 7	98.1MHz, 46dB (Mod. 400Hz, Dev. 40kHz)	98.1MHz	T.P.3	Adjust VR2101 for 3.5±0.1V.
3	Noise Level Adjustment	(1)	Figure 8	98.1MHz, 72dB (Mod. 400Hz, Dev. 40kHz)	98.1MHz	Speaker Output	Adjust MAIN VOLUME (S404, 405, 407) to obtain 2V output. This value is 0dB.
		(2)	Figure 8	98.1MHz, -19dB (Mod. 400Hz, Dev. 40kHz)	98.1MHz	Speaker Output	Adjust VR2105 to -25±5dB output at SG level minimum.
4	Seek Stop Adjustment		Figure 9	98.1MHz, 28dB (Mod. OFF)	98.1MHz	T.P.4 T.P.5	Adjust VR2104 for the waveform changing to maximum output. Figure : Waveform of T.P.5 output.  Stop the adjust VR2104 at this time.
5	Stereo Separation Adjustment (Lch)		Figure 10	98.1MHz, 72dB (Mod. 1kHz, Dev. 36kHz, Stereo, Lch Only)	98.1MHz	T.P.8 Speaker Output	Adjust VR2103 for Rch output to be minimum, and confirm Lch and Rch output level difference is more than 20dB.
6	Stereo Blend Adjustment (Lch)		Figure 10	98.1MHz, 40dB (Mod. 1kHz, Dev. 36kHz, Stereo, Lch Only)	98.1MHz	Speaker Output	Adjust VR2102 for Lch and Rch output level difference to be 8dB.
7	Stereo Separation Adjustment (Rch)		Figure 10	98.1MHz, 72dB (Mod. 1kHz, Dev. 36kHz, Stereo, Rch Only)	98.1MHz	T.P.8 Speaker Output	Proceed same adjustment under step 5 by alternating Lch and Rch.
8	Stereo Blend Adjustment (Rch)		Figure 10	98.1MHz, 40dB (Mod. 1kHz, Dev. 36kHz, Stereo, Rch Only)	98.1MHz	Speaker Output	Proceed same adjustment under step 6.

2. TAPE PLAYER SECTION

(1) Connector

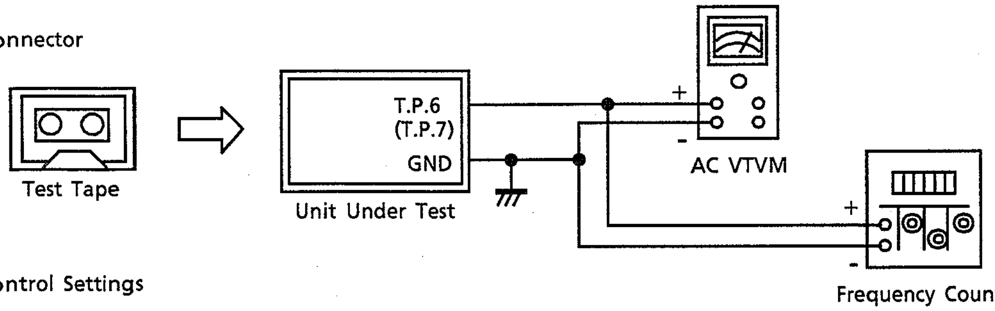

Test Tape
Unit Under Test
T.P.6
(T.P.7)
GND
+
-
AC VTVM
+
-
Frequency Counter

Figure 11

(2) Control Settings

Power Switch	ON
Fader Control	Center Position
Balance Control	Center Position
Treble / Bass Control	Center Position
Others	OFF

(3) Adjustment Procedures

Step	Description	Test Tape	Connection	Test Point	Adjustment Point	Adjustment
1	Head Azimuth Adjustment	MTT-114NB (14kHz)	Figure 11	T.P.6 (Lch) T.P.7 (Rch)	Head Azimuth Adjustment Screws (Figure 12)	Adjust for Max. and same level output at Normal and Reverse positions.
2	Dolby Level Adjustment	MTT-150 (400Hz)	Figure 11	T.P.6 (Lch) T.P.7 (Rch)	VR301 (Lch) VR302 (Rch)	Adjust for 388±10mV at T.P.6 (Lch) and T.P.7 (Rch).
3	Tape Speed Adjustment	MTT-111N (3kHz)	Figure 11	T.P.6 (Lch) or T.P.7 (Rch)	Tape Speed Adjustment (Figure 13)	Adjust for 2,970 to 3,090Hz at T.P.6 (T.P.7).

Adjustment Locations

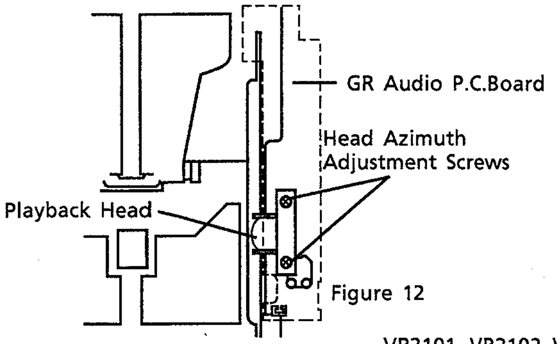

GR Audio P.C.Board
Head Azimuth
Adjustment Screws
Playback Head

Figure 12

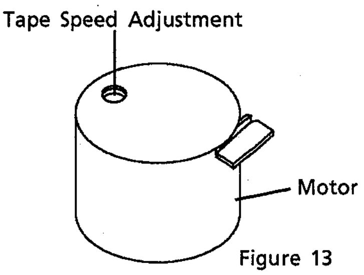
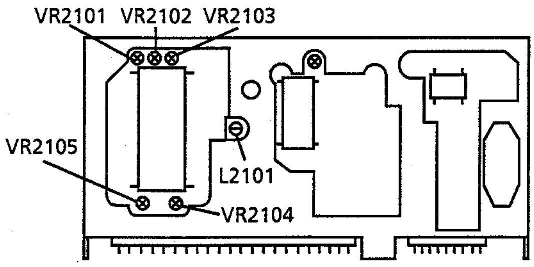

Tape Speed Adjustment
Motor

Figure 13


VR2101
VR2102
VR2103
VR2105
L2101
VR2104

FM / MW / LW Tuner Unit (FE001)

Note : For the Adjustment Parts (VR301, 302) and Test Points, refer to the Parts Layout on P.C.Board and Wiring Diagram.

Description of IC Terminal

45552W43 (IC401)

No.	Symbol	I / O	Terminal Description
1	75850 $\overline{\text{INH}}$	O	INH signal output terminal to LC75850W.
2	75850 CE	O	Stand - by control terminal to LC75850W.
3	75850 CLK	O	Communication sync signal output terminal to LC75850W.
4	75850 DATA	O	Serial data output terminal to LC75850W.
5	V_{SS}	—	GND short.
∫			
7			
8	ORG / $\overline{\text{GRN}}$	O	Output terminal for lamp switching.
9	V_{SS}	—	GND potential terminal.
10	V_{SS}	—	GND short.
∫			
25			
26	NC	—	Open.
27	KS0	O	Key scan signal output terminal.
28	KS1		
29	KS2		
30	KS3		
31	V_{SS}	—	GND short.
32			
33	MODEL 0	I	Model set up terminal.
34	V_{SS}	—	GND short.
35	$\overline{\text{RESET}}$	I	System reset input terminal.
36	V_{SS}	—	GND short.
37	REMOCON	I	Remocon data input terminal.
38	CONT START	I	Command sync signal input terminal from Main microcomputer (IC501).
39	AREA 0	I	Initial setting input terminal.
40	V_{DD}	—	Positive power supply terminal.
41	X2	O	Ceramic element connection terminal for system clock OSC.
42	X1	I	
43	V_{SS}	—	GND short.
44	NC	—	Open.
45	AREA 1	I	Initial setting input terminal.
46	V_{SS}	—	GND potential terminal.
47	KR0	I	Key-matrix signal input terminal.
48	KR1		
49	KR2		
50	KR3		
51	KR4		
52	KR5		
53	KR6		
54	V_{SS}	—	GND short.
55	PWR+5V	I	Positive power supply terminal short.
56			
57	CONT STATUS	I	Serial data signal input terminal from Main microcomputer (IC501).
58	CONT COMMAND	O	Serial data signal output terminal to Main microcomputer (IC501).
59	CONT SCK	I	Communication sync signal input terminal from Main microcomputer (IC501).
60	V_{SS}	—	GND short.
∫			
64			

65358W05 (IC501)

No.	Symbol	I / O	Terminal Description
1	Vss	—	GND short.
∫			
3			
4	NC	—	Open.
5	V_{DD}	—	Positive power supply terminal.
6	Vss	—	GND potential terminal.
7	OSC1	I	Ceramic element connection terminal for system clock OSC (8MHz).
8	OSC2	O	
9	$\overline{\text{RESET}}$	I	System reset input terminal.
10	BATT+5V	I	Mode Terminal. (Connection to BATT+5V line)
11	BUS CHECK	I	BUS Line check terminal.
12	BATT+5V	I	BATT detector terminal.
13	Vss	—	GND short.
14			
15	DTS STBY	O	NMI control signal output terminal to DTS microcomputer (IC504).
16	DTS CE	O	CE signal output terminal to DTS microcomputer (IC504).
17	$\overline{\text{DTS MUTE}}$	I	Mute signal input terminal from DTS microcomputer (IC504)
18	DTS START	O	Data sync signal output terminal to DTS microcomputer (IC504).
19	$\overline{\text{DTS SCK}}$	O	Communication sync signal output terminal to DTS microcomputer (IC504).
20	DTS STS	I	Serial data input terminal from DTS microcomputer (IC504).
21	DTS CMD	O	Serial data output terminal to DTS microcomputer (IC504).
22	$\overline{\text{CONT SCK}}$	O	Communication sync signal output terminal to Display microcomputer (IC401).
23	CONT CMD	I	Serial data input terminal from Display microcomputer (IC401).
24	CONT STS	O	Serial data output terminal to Display microcomputer (IC401).
25	CONT START	O	Data sync signal output terminal to Display microcomputer (IC401).
26	$\overline{\text{CONT RST}}$	O	Reset control signal output terminal to Display microcomputer (IC401).
27	Vss	—	GND short.
28	NC	—	Open.
∫			
30			
31	V_{DD}	—	Positive power supply terminal.
32	Vss	—	GND short.
∫			
52			
53	PULL DOWN	—	Pull Down terminal.
54			
55	$\overline{\text{A. MUTE}}$	O	Audio mute signal output terminal.
56	PWR IC ON	O	Stand-by control signal output terminal to Power IC.
57	NOSE PWR ON	O	Power control signal output temrinal to Display microcomputer (IC401) and LCD driver.
58	LCD PWR ON	O	Power control signal output temrinal to LCD back lighting.
59	POWER CONT	O	Power control signal output temrinal to Audio line and lighting.
60	$\overline{\text{DOLBY C}}$	O	Dolby C NR ON / OFF signal output terminal.
61	$\overline{\text{DOLBY B}}$	O	Dolby B NR ON / OFF signal output terminal.
62	E. V. DATA	I / O	Serial data output and ACK data input terminal for Electrical Volume.
63	E. V. CLK	O	Serial clock data output terminal to Electrical Volume.
64	M.S DET	I	Music ON / OFF switching signal input terminal.
65	LEVEL O. FAST	O	Gain control signal output terminal to MS IC.
66	METAL	I	Metal tape detection terminal.
67	FOR / $\overline{\text{REV}}$	O	FOR / REV control terminal.
68	PACK IN	I	Switch to detect cassette is installed into cassette holder or not.
69	O. MOTOR	O	Determins start and stop of motor in deck mechanism.
70	MOTOR CONT	O	Determins rotation direction of motor in deck mechanism.

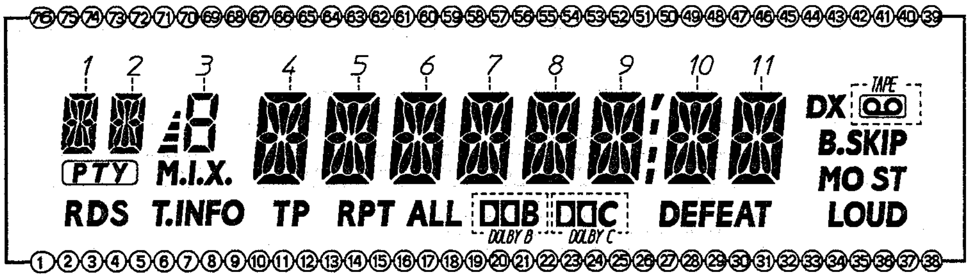
No.	Symbol	I / O	Terminal Description
71	EJ SOL	O	Eject Solenoid control signal output terminal in deck mechanism.
72	RF SOL	O	RF Solenoid control signal output terminal in deck mechanism.
73	PLAY SOL	O	Play Solenoid control signal output terminal in deck mechanism.
74	RUN DET	O	Signal showing take-up reel is roating or not.
75	PACK DOWN	I	Switch to detect cassette holder is moved down completely.
76	V_{DD}	—	Positive power supply terminal.
77	V_{SS}	—	GND short.
78	TP ALARM	O	ALARM signal output terminal (at TP OFF ALARM).
79	BUZZER	O	Guide tone signal output terminal.
80	OUT REM	O	Remote signal output terminal.
81	$\overline{\text{BUS RST}}$	O	Reset signal output terminal to BUS control IC.
82	BUS R/$\overline{\text{W}}$	O	Read / Write select signal output terminal to BUS control IC.
83	BUS RS	O	Resister signal output terminal to BUS control IC.
84	BUS IRQ	I	IRQ signal input terminal from BUS control IC.
85	BUS CLK	O	Communication sync signal output terminal to BUS control IC.
86	BUS STS	I	Serial data input terminal from BUS control IC.
87	BUS CMD	O	Serial data output terminal to BUS control IC.
88	ACC+5V	I	ACC power supply detection terminal.
89	AV_{REF}	I	Reference voltage input terminal for A / D converter.
90	NOSE ON	I	Front panel detection terminal.
91	AREA0	I	Initial setting input terminal.
92	AREA1		
93	TONE DEFEAT	I	Compulsion defeat ON / OFF detect terminal of Electrial Volume Treble / Bass.
94	$\overline{\text{IN PAU}}$	I	Pause signal input terminal.
95	$\overline{\text{IN INT}}$	I	INT signal input terminal.
96	MODEL0	I	Model set up terminal.
97	Vss	—	GND short.
~			
100			

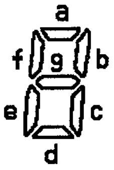
55281W07 (IC504)

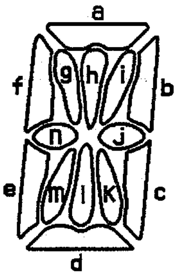
No.	Symbol	I / O	Terminal Description
1	CE1	O	CE1 control terminal for S · RAM.
2	NC	—	Open.
3	$\overline{\text{DTS MUTE}}$	O	Audio mute output terminal.
4	SRAM STBY	O	S · RAM stand-by output terminal.
5	50KREF	O	High output when REF frequency becomes 50kHz in FM mode.
6	$\overline{\text{RESET}}$	I	System reset input terminal.
7	X2	—	Output terminal for system clock OSC.
8	X1	—	Output terminal for system clock OSC.
9	V_{SS}	—	GND potential terminal.
10	PULL DOWN	—	Pull-Down terminal.
~			
12			
13	A12	O	Output terminal for S · RAM address signal.
14	A11		
15	A10		
16	A9		
17	A8		
18	AD7	I / O	Input / Output terminal for S · RAM address / data signal.
19	AD6		
20	AD5		
21	AD4		

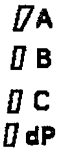
No.	Symbol	I / O	Terminal Description
22	AD3	I / O	Input / Output terminal for S · RAM address / data signal.
23	AD2		
24	V_{SS}	—	GND short.
25	AD1	I / O	Input / Output terminal for S · RAM address / data signal.
26	AD0		
27	LE	O	LE control terminal for latch.
28	DTS STBY	I	Return from stand-by to Main microcomputer (IC501).
29	RDS CLOCK	I	RDS Clock input terminal.
30	RDS START	I	RDS Data start input terminal.
31	RDS DATA	I	RDS Data input terminal.
32	PLL DATA IN	I	PLL data input terminal.
33	AUDIO IN	I	Audio xerox input terminal.
34	DTS START	I	Command sync signal input from Main microcomputer (IC501).
35	DTS COMMAND	I	Serial data input terminal from Main microcomputer (IC501).
36	RXD	I	Monitor communication input terminal.
37	NC	—	Open.
38	DTS CLOCK	I	Communication data sync signal input terminal from Main microcomputer (IC501).
39	DTS STATUS	O	Serial data output terminal to Main microcomputer (IC501).
40	V_{DD}	—	Positive power supply terminal.
41			
42	AV_{SS}	—	GND short.
43	AV_{REF}	—	Posirive power supply terminal short.
44	$\overline{\text{ST}}$	I	Stereo signal input terminal.
45	V_{SS}	—	GND short.
46			
47	MULTI PATH	I	Port detects multi path interference of station.
48	ADJON	I	Port detects adjoining rejection interference of station.
49	S.METER	I	Signal meter input terminal.
50	$\overline{\text{DK}}$	I	DK signal input terminal.
51	$\overline{\text{RDS}}$	I	RDS signal input terminal.
52	PLL CLOCK	O	Communication data sync signal output terminal.
53	PLL DATA OUT	O	Serial data output terminal.
54	$\overline{\text{LPF SW}}$	O	LPF time constant switching terminal to obtain fast response in AF search and FM seek operation.
55	$\overline{\text{IF MUTE}}$	O	Mute output terminal to prevent shock noises in AF search operation.
56	PLL CE	O	Data communication control signal output terminal.
57	NC	—	Open.
58	LW	O	LW band selection terminal.
59	FM / $\overline{\text{AM}}$	O	FM / AM (MW / LW) bands selection terminal.
60	LOCAL / $\overline{\text{DX}}$	O	SEEK sensitivity switch control output terminal.
61	MONO	O	Stereo / Mono switch control output terminal.
62	DTS CE	I	Terminal to make Main microcomputer (IC501) in stand-by status.
63	SD	I	Station detector signal input terminal for FM / AM (MW / LW).
64	$\overline{\text{WR}}$	O	S · RAM WE control signal.

LCD Display


76 75 74 73 72 71 70 69 68 67 66 65 64 63 62 61 60 59 58 57 56 55 54 53 52 51 50 49 48 47 46 45 44 43 42 41 40 39
1
2
3
4
5
6
7
8
9
10
11
TAPE
DX
B.SKIP
MO ST
PTY
M.I.X.
RDS
T.INFO
TP
RPT
ALL
B
C
DOLBY B
DOLBY C
DEFEAT
LOUD
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38

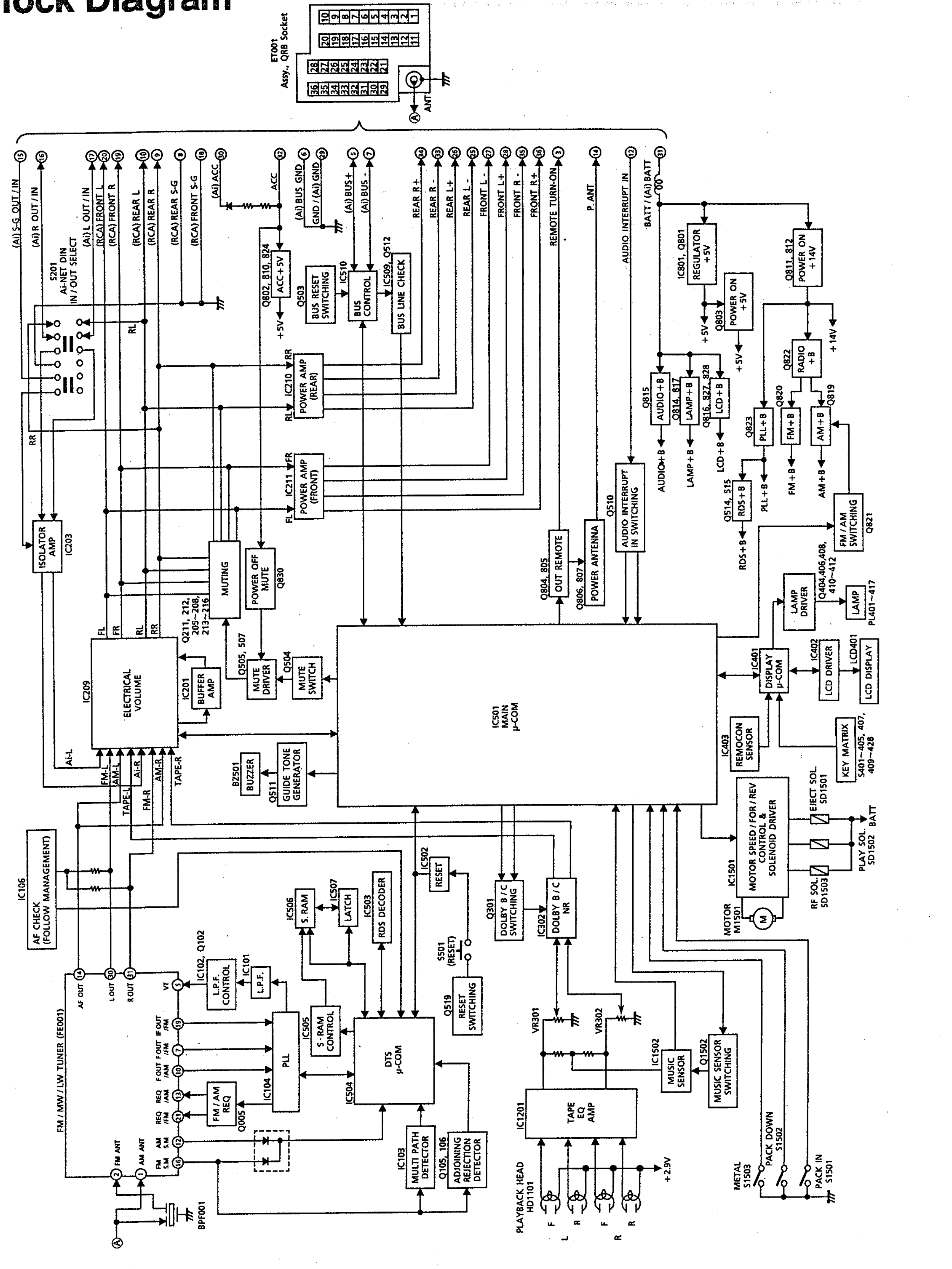



a
f
g
h
i
b
n
j
e
m
l
k
c
d

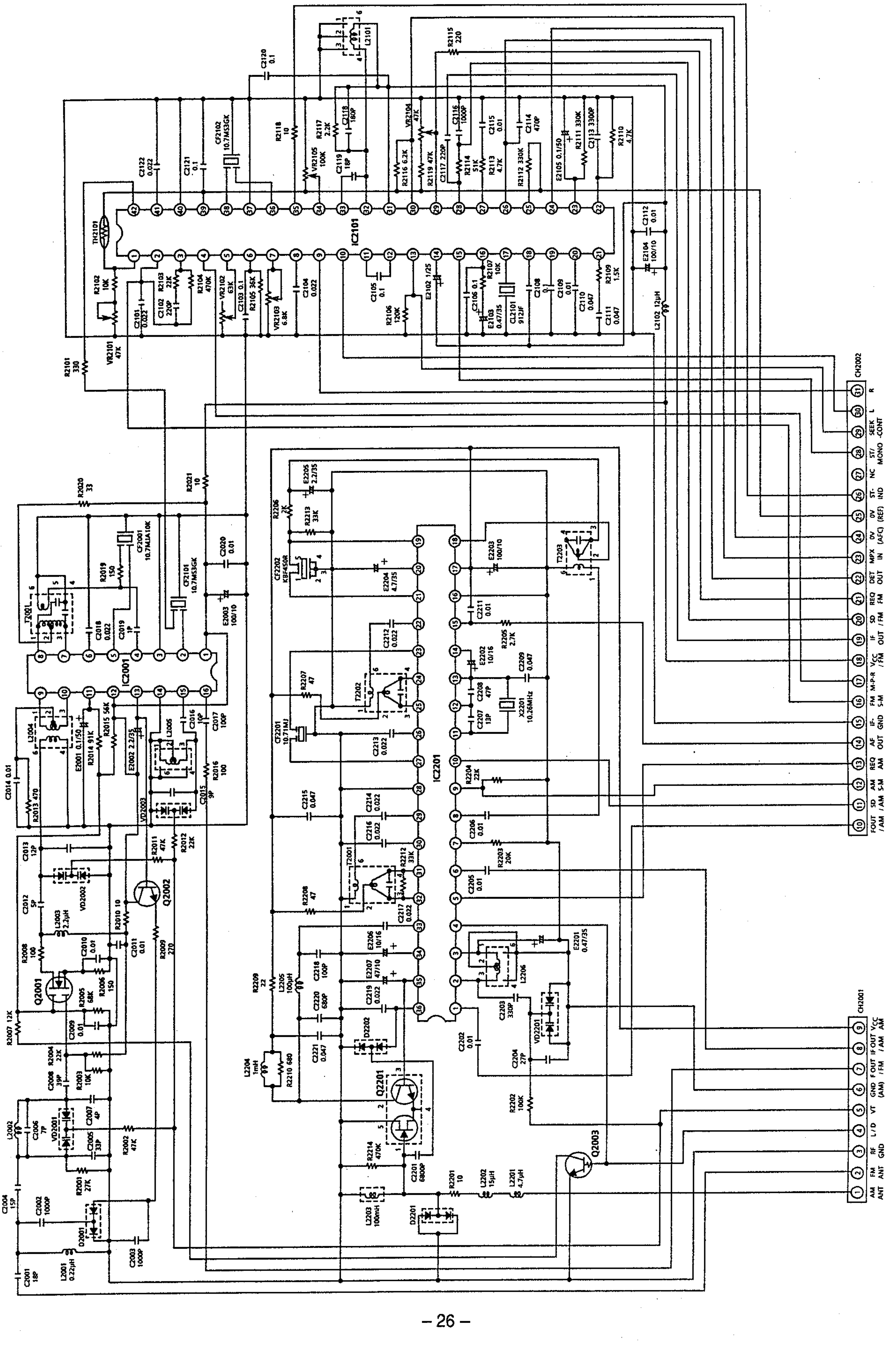


PAD No.	1	2	3	4	5	6	7	8	9	10	11
COM.1			1f	1b	2f	3f					
COM.2			1e	1c	2e	3e					
COM.3			RDS	PTY	M.I.X.	T.INFO					
PAD No.	**12**	**13**	**14**	**15**	**16**	**17**	**18**	**19**	**20**	**21**	**22**
COM.1			5f	5i	5b	6b	7f	7g	7b		
COM.2			5e	5j	5c	6j	7e	7n	7c		
COM.3			RPT	5k	ALL	6k	6c	7m	DOLBY B		
PAD No.	**23**	**24**	**25**	**26**	**27**	**28**	**29**	**30**	**31**	**32**	**33**
COM.1	8f	9g	9a	9b	A	11b					
COM.2	8e	9h, 9l	9i	9j	B, C	11c					
COM.3	DOLBY C	9d	9k	9c	dp	DEFEAT					
PAD No.	**34**	**35**	**36**	**37**	**38**	**39**	**40**	**41**	**42**	**43**	**44**
COM.1								COM.1	TAPE	DX	11i
COM.2							COM.2		ST	B.SKIP	11j
COM.3						COM.3			LOUD	MO	11k
PAD No.	**45**	**46**	**47**	**48**	**49**	**50**	**51**	**52**	**53**	**54**	**55**
COM.1	11a	11g	11f	10b	10i	10a	10f	9f	8b	8i	8a
COM.2	11h, 11l	11n	11e	10j	10h, 10l	10g	10n	9n	8c	8j	8h, 8l
COM.3	11d	11m	10c	10k	10d	10m	10e	9m	9e	8k	8d
PAD No.	**56**	**57**	**58**	**59**	**60**	**61**	**62**	**63**	**64**	**65**	**66**
COM.1	8g	7i	7a	6i	6a	6f	5a	5g	4b	4i	4a
COM.2	8n	7j	7h, 7l	6h, 6l	6g	6n	5h, 5l	5n	4c	4j	4h, 4l
COM.3	8m	7k	7d	6d	6m	6e	5d	5m	TP	4k	4d
PAD No.	**67**	**68**	**69**	**70**	**71**	**72**	**73**	**74**	**75**	**76**	
COM.1	4g	3b	3g	2b	2i	2a	2g	1i	1a	1g	
COM.2	4n	4f	3a, 3d	2c	2j	2h, 2l	2n	1j	1h, 1l	1n	
COM.3	4m	4e	3c	≡	2k	2d	2m	1k	1d	1m	

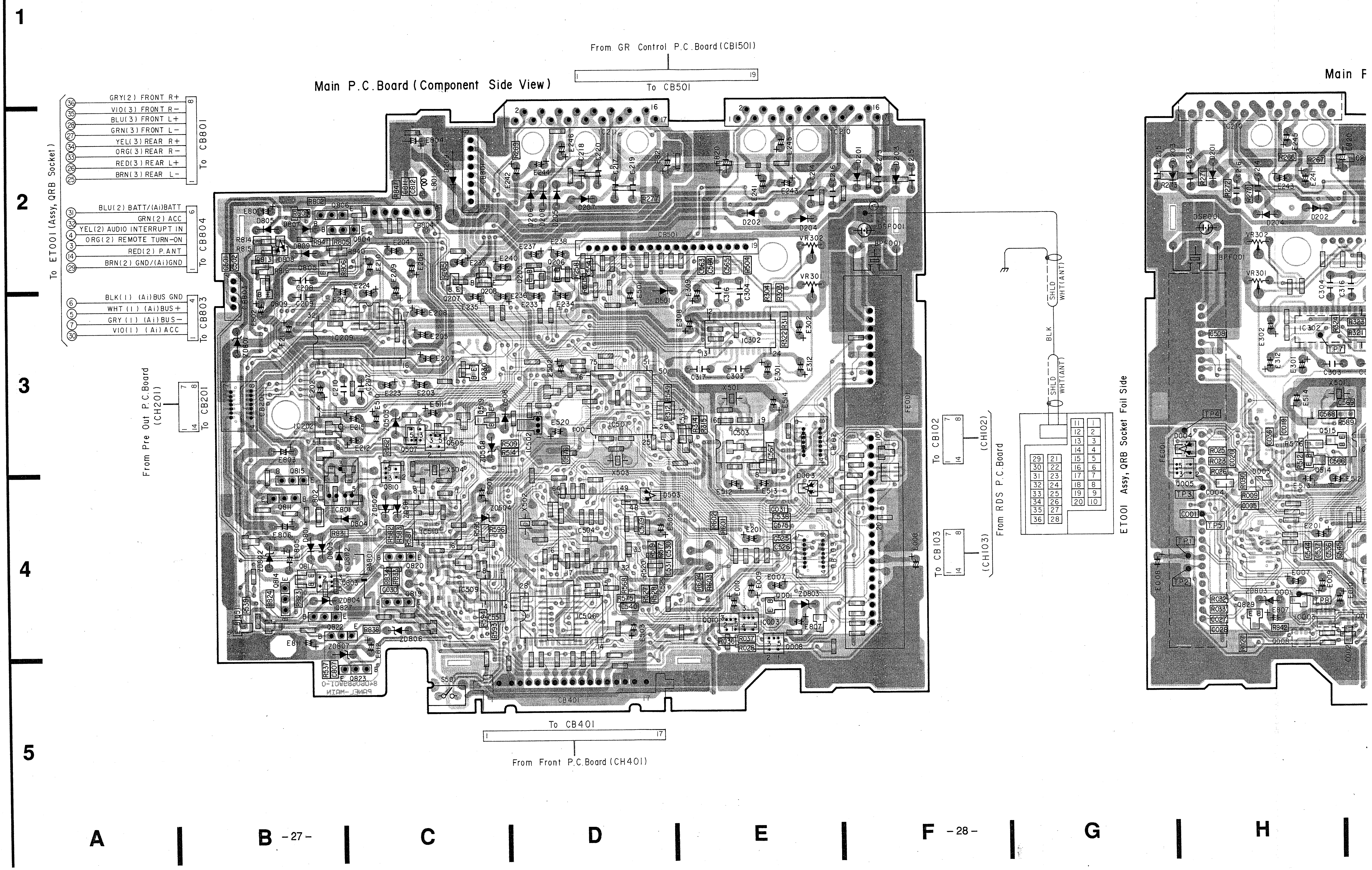
Block Diagram


ET001 Assy., QRB Socket
ANT
(Ai) S-G OUT / IN
(Ai) R OUT / IN
(Ai) L OUT / IN
(RCA) FRONT L
(RCA) FRONT R
(RCA) REAR L
(RCA) REAR R
(RCA) REAR S-G
(RCA) FRONT S-G
(Ai) ACC
ACC
(Ai) BUS GND
GND / (Ai) GND
(Ai) BUS +
(Ai) BUS -
REAR R+
REAR R -
REAR L+
REAR L -
FRONT L -
FRONT L+
FRONT R -
FRONT R+
REMOTE TURN-ON
P. ANT
AUDIO INTERRUPT IN
BATT / (Ai) BATT
S201 Ai-NET DIN IN / OUT SELECT
Q802, 810, 824 ACC+5V
Q503 BUS RESET SWITCHING
IC510 BUS CONTROL
IC509, Q512 BUS LINE CHECK
IC801, Q801 REGULATOR +5V
Q803 POWER ON +5V
Q811, 812 POWER ON +14V
Q822 RADIO +B
Q815 AUDIO+B
Q814, 817 LAMP+B
Q816, 827, 828 LCD+B
Q823 PLL+B
Q820 FM+B
Q819 AM+B
Q514, 515 RDS+B
Q821 FM / AM SWITCHING
IC210 POWER AMP (REAR)
IC211 POWER AMP (FRONT)
IC203 ISOLATOR AMP
Q211, 212, 205~208, 213~216 MUTING
Q830 POWER OFF MUTE
Q804, 805 OUT REMOTE
Q806, 807 POWER ANTENNA
Q510 AUDIO INTERRUPT IN SWITCHING
Q404,406,408, 410~412 LAMP DRIVER
PL401~417 LAMP
IC209 ELECTRICAL VOLUME
IC201 BUFFER AMP
Q505, 507 MUTE DRIVER
Q504 MUTE SWITCH
IC501 MAIN µ-COM
IC401 DISPLAY µ-COM
IC402 LCD DRIVER
LCD401 LCD DISPLAY
IC403 REMOCON SENSOR
KEY MATRIX S401~405, 407, 409~428
BZ501 BUZZER
Q511 GUIDE TONE GENERATOR
IC1501 MOTOR SPEED / FOR / REV CONTROL & SOLENOID DRIVER
EJECT SOL. SD1501
PLAY SOL. SD1502
RF SOL. SD1503
BATT
MOTOR M1501
IC106 AF CHECK (FOLLOW MANAGEMENT)
IC502 RESET
S501 (RESET)
Q519 RESET SWITCHING
IC506 S. RAM
IC507 LATCH
IC503 RDS DECODER
Q301 DOLBY B / C SWITCHING
IC302 DOLBY B / C NR
VR301
VR302
IC1502 MUSIC SENSOR
Q1502 MUSIC SENSOR SWITCHING
IC1201 TAPE EQ AMP
PLAYBACK HEAD HD1101
+2.9V
METAL S1503
PACK DOWN S1502
PACK IN S1501
FM / MW / LW TUNER (FE001)
AF OUT
L OUT
R OUT
VT
IF OUT /FM
F OUT /FM
F OUT /AM
REQ /AM
REQ /FM
AM S.M
FM S.M
AM ANT
FM ANT
IC102, Q102 L.P.F. CONTROL
IC101 L.P.F.
IC104 PLL
IC505 S-RAM CONTROL
IC504 DTS µ-COM
Q005 FM / AM REQ
IC103 MULTI PATH DETECTOR
Q105, 106 ADJOINING REJECTION DETECTOR
BPF001
FL
FR
RL
RR
Ai-L
FM-L
AM-L
Ai-R
AM-R
TAPE-R
TAPE-L
FM-R
+5V
+14V
LAMP+B
LCD+B
PLL+B
FM+B
AM+B
RDS+B
AUDIO+B
F
L
R

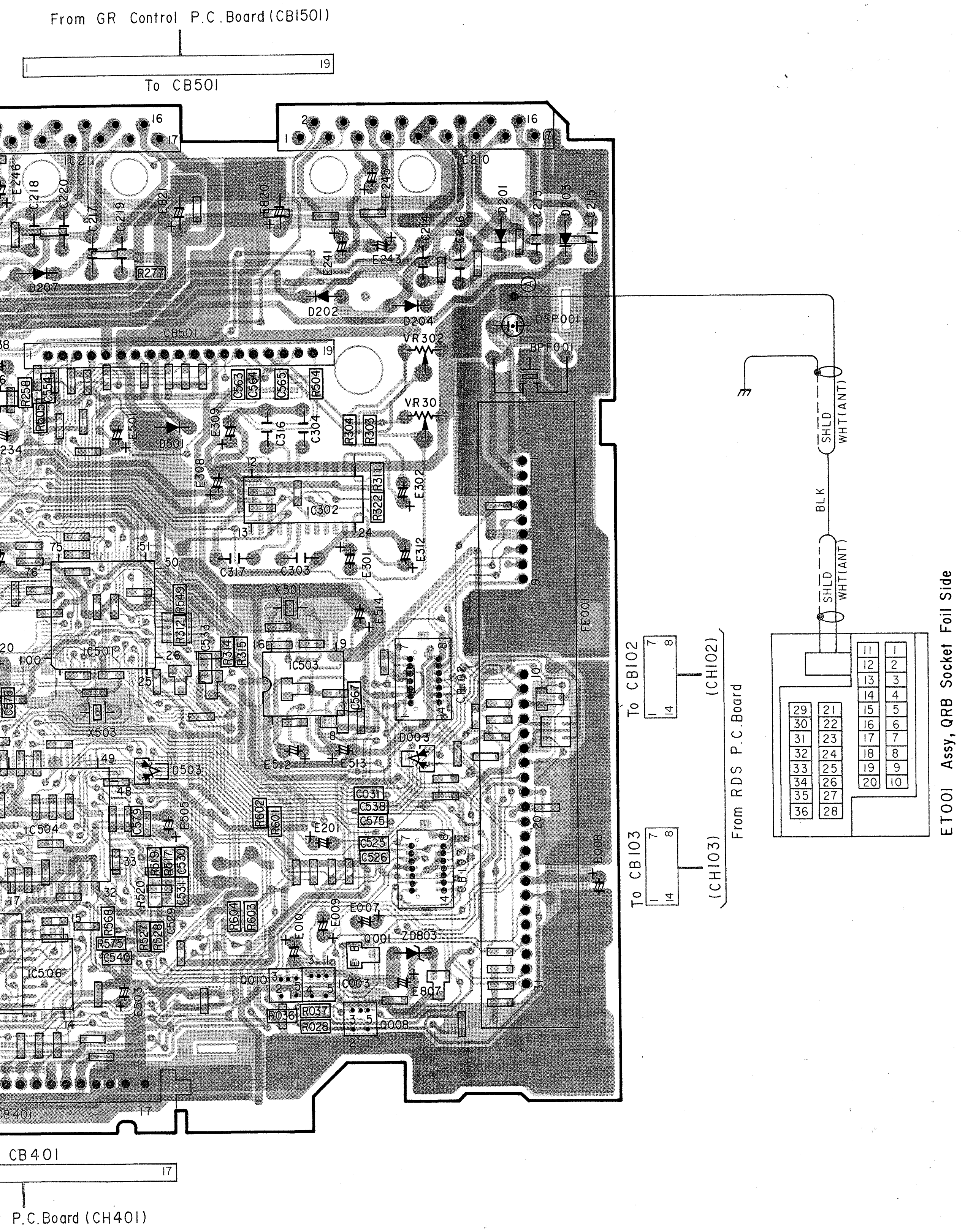
Tuner Schematic Diagram


IC2101
IC2001
IC2201
CH2002
31 R
30 L
29 SEEK -CONT
28 ST/ MONO
27 NC
26 ST- IND
25 0V (REF)
24 0V (AFC)
23 MPX IN
22 DET OUT
21 REQ FM
20 SD /FM
19 IF OUT /FM
18 VCC /FM
17 M-P-R
16 FM S-M
15 IF- GND
14 AF OUT
13 REQ AM
12 AM S-M
11 SD /AM
10 FOUT /AM
CH2001
1 AM ANT
2 FM ANT
3 RF GND
4 L/D
5 VT
6 GND (AM)
7 FOUT /FM
8 IF OUT /AM
9 VCC AM
Q2001
Q2002
Q2003
Q2201
T2001
T2202
T2203
L2101
CF2101 10.7MS3GK
CF2102 10.7MS3GK
CF2001 10.7MA1A10K
CF2201 10.71MJ
CF2202 KBI450R
X2201 10.26MHz
CE2101 912F
TH2101

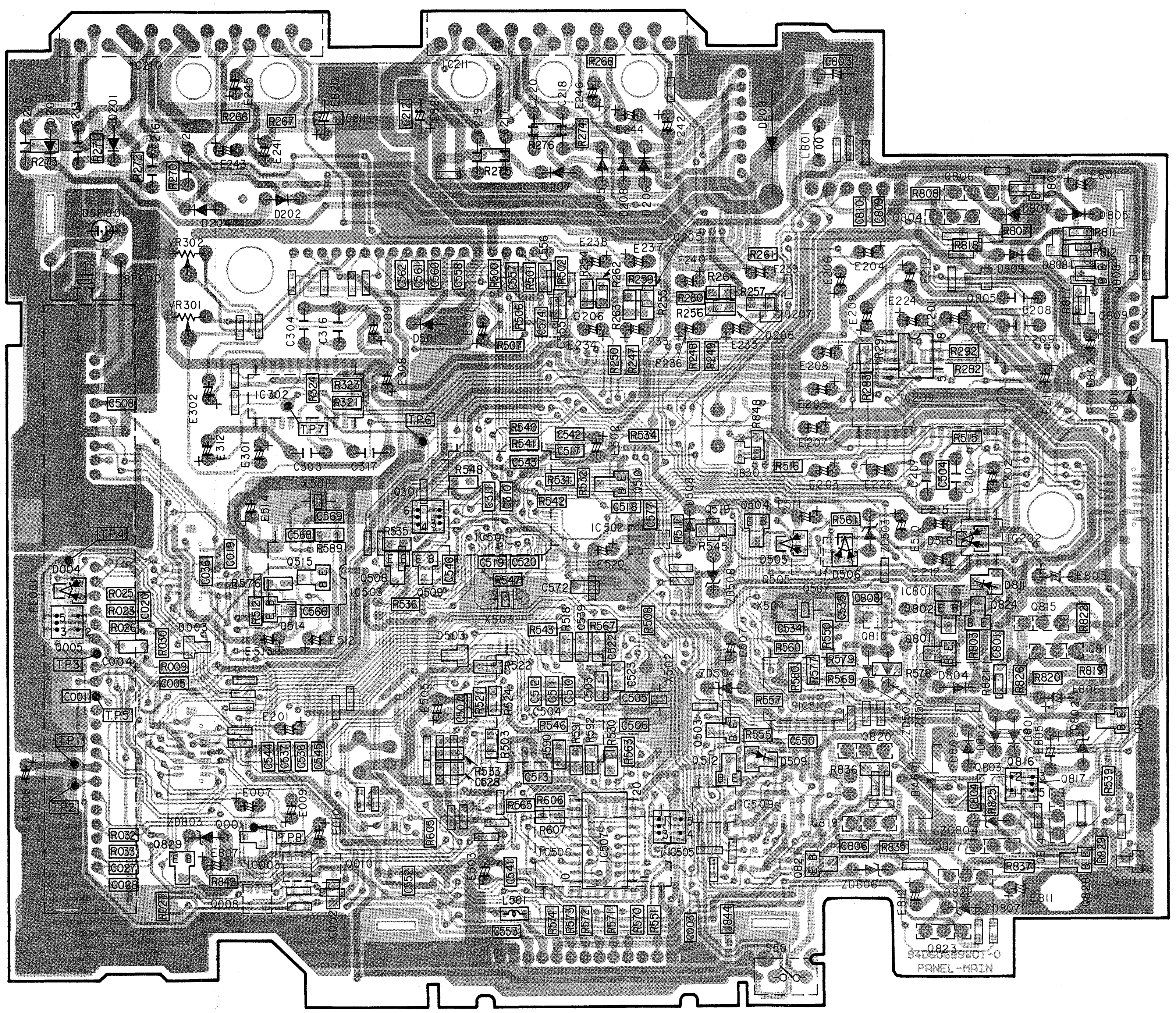
Parts Layout on P.C. Boards and Wiring Diagram (1/2)


1
2
3
4
5
Main P.C. Board (Component Side View)
From GR Control P.C. Board (CB1501)
To CB501
Main F
To ET001 (Assy, QRB Socket)
GRY(2) FRONT R+ ㊱
VIO(3) FRONT R− ㉟
BLU(3) FRONT L+ ㉘
GRN(3) FRONT L− ㉗
YEL(3) REAR R+ ㉞
ORG(3) REAR R− ㉝
RED(3) REAR L+ ㉖
BRN(3) REAR L− ㉕
To CB801
BLU(2) BATT/(Ai)BATT ㉛
GRN(2) ACC ㉜
YEL(2) AUDIO INTERRUPT IN ④
ORG(2) REMOTE TURN-ON ③
RED(2) P.ANT ⑭
BRN(2) GND/(Ai)GND ㉙
To CB804
BLK(1) (Ai)BUS GND ⑥
WHT(1) (Ai)BUS+ ⑤
GRY(1) (Ai)BUS− ⑦
VIO(1) (Ai) ACC ㉚
To CB803
From Pre Out P.C.Board (CH201)
To CB201
To CB102 (CH102)
To CB103 (CH103)
From RDS P.C.Board
SHLD WHT(ANT)
BLK
ET001 Assy, QRB Socket Foil Side
To CB401
From Front P.C.Board (CH401)
A
B
C
D
E
F
G
H

ram (1/2)


From GR Control P.C.Board (CB1501)
To CB501
To CB102
(CH102)
From RDS P.C.Board
To CB103
(CH103)
SHLD WHT(ANT)
BLK
SHLD WHT(ANT)
ET001 Assy, QRB Socket Foil Side
CB401
P.C.Board (CH401)

Main P.C.Board (Foil Side View)

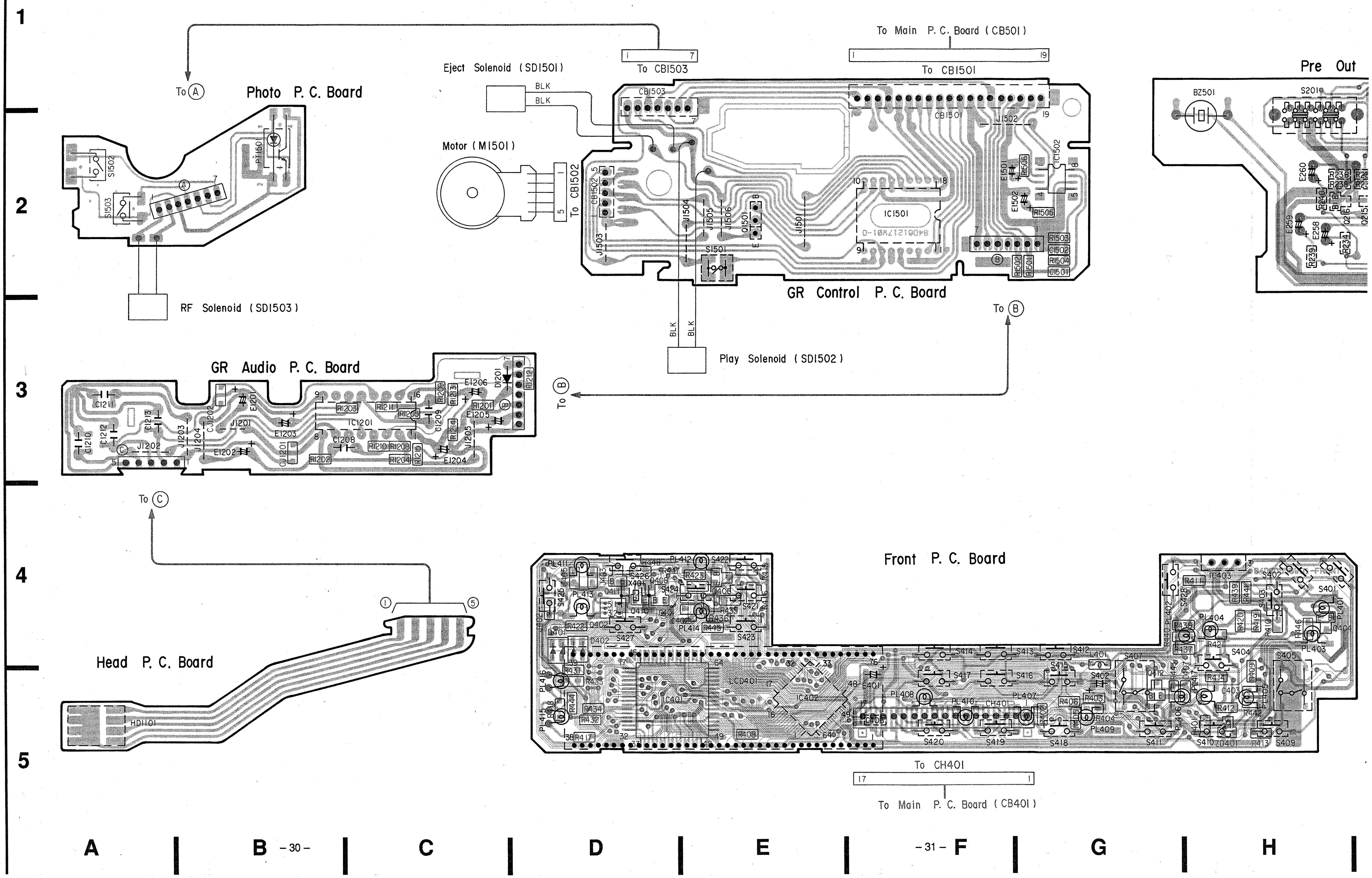

84DG089001-0
PANEL-MAIN

Orange Color Pattern : Component Side Pattern
Blue Color Pattern : Foil Side Pattern

D | E | F | G | H | I | J | K |

Parts Layout on P.C. Boards and Wiring Diagram (2/2)

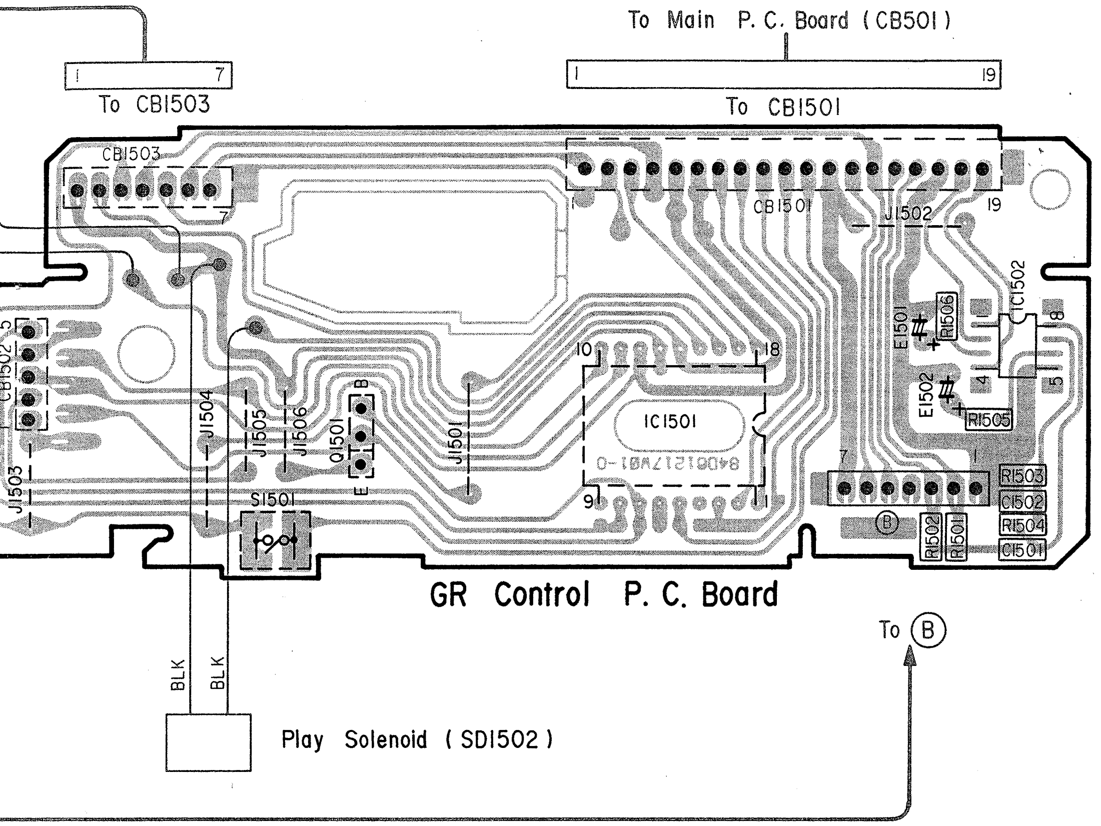
All P.C. Boards viewed from soldered side.


1
2
3
4
5
To Ⓐ
Photo P. C. Board
S1502
S1503
PT1501
RF Solenoid (SD1503)
Eject Solenoid (SD1501)
BLK
BLK
Motor (M1501)
To CB1502
To CB1503
To Main P. C. Board (CB501)
To CB1501
CB1503
CB1501
J1502
CB1502
IC1502
E1501
R1506
E1502
R1505
J1504
J1505
J1506
Q1501
J1501
IC1501
J1503
S1501
R1503
C1502
R1504
C1501
R1502
R1501
GR Control P. C. Board
To Ⓑ
BLK
BLK
Play Solenoid (SD1502)
Pre Out
BZ501
S201
GR Audio P. C. Board
IC1201
D1201
E1201
E1202
E1203
E1204
E1205
E1206
J1201
J1202
J1203
J1204
J1205
To Ⓑ
To Ⓒ
Head P. C. Board
HD1101
Front P. C. Board
LCD401
IC401
IC402
IC403
CH401
To CH401
To Main P. C. Board (CB401)
A
B
C
D
E
F
G
H

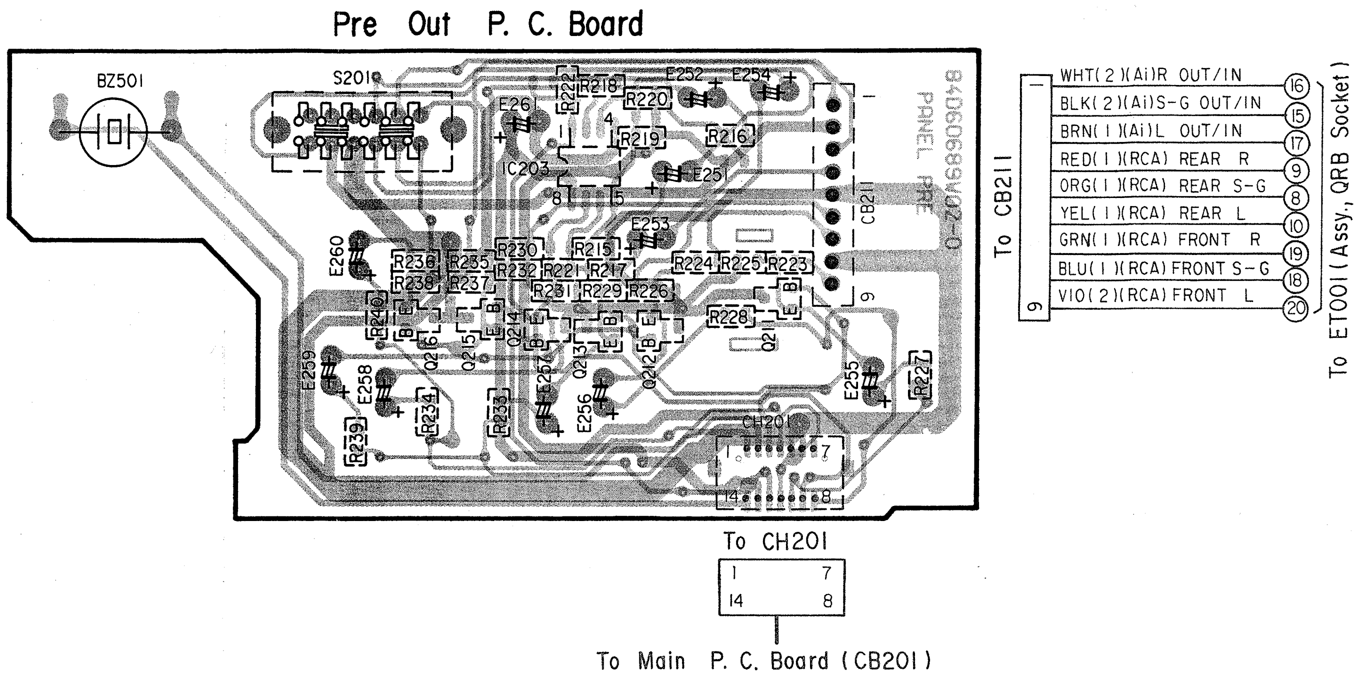
n (2/2)

All P.C. Boards viewed from soldered side.

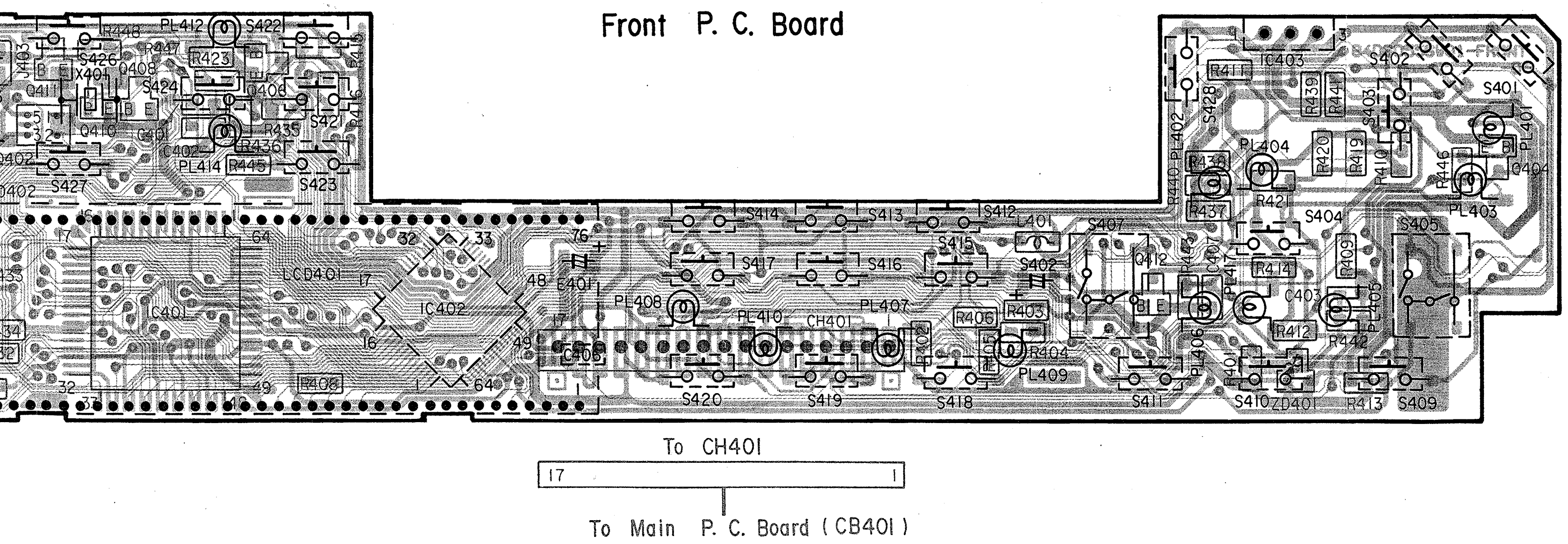
Orange Color Pattern : Component Side Pattern
Blue Color Pattern : Foil Side Pattern


To Main P. C. Board (CB501)
To CB1503
To CB1501
CB1503
CB1501
J1502
IC1502
IC1501
E1501
E1502
R1506
R1505
J1503
J1504
J1505
J1506
Q1501
J1501
S1501
R1503
C1502
R1504
C1501
R1502
R1501
To Ⓑ
BLK
BLK
Play Solenoid (SD1502)

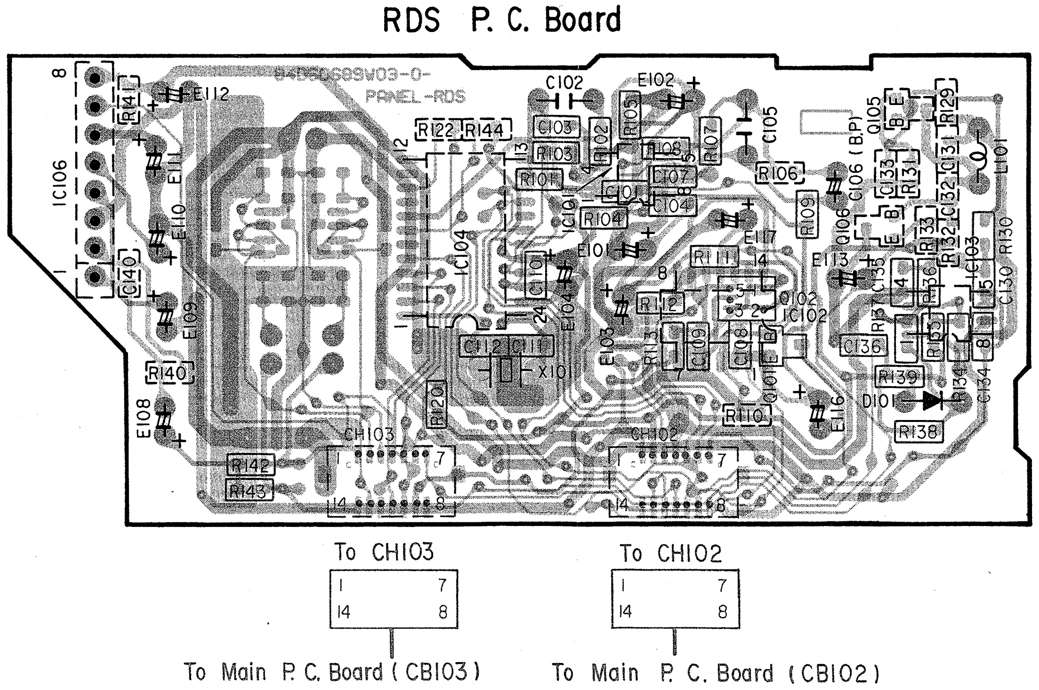
GR Control P. C. Board


BZ501
S201
IC203
CB211
PANEL PRE
E252
E254
E251
E253
E255
E256
E257
E258
E259
E260
R215
R216
R217
R218
R219
R220
R221
R222
R223
R224
R225
R226
R227
R228
R229
R230
R231
R232
R233
R234
R235
R236
R237
R238
R239
R240
Q211
Q212
Q213
Q214
Q215
Q216
CH201
To CH201
To Main P. C. Board (CB201)
To CB211
WHT(2)(Ai)R OUT/IN ⑯
BLK(2)(Ai)S-G OUT/IN ⑮
BRN(1)(Ai)L OUT/IN ⑰
RED(1)(RCA) REAR R ⑨
ORG(1)(RCA) REAR S-G ⑧
YEL(1)(RCA) REAR L ⑩
GRN(1)(RCA) FRONT R ⑲
BLU(1)(RCA) FRONT S-G ⑱
VIO(2)(RCA) FRONT L ⑳
To ET001 (Assy, QRB Socket)

Pre Out P. C. Board

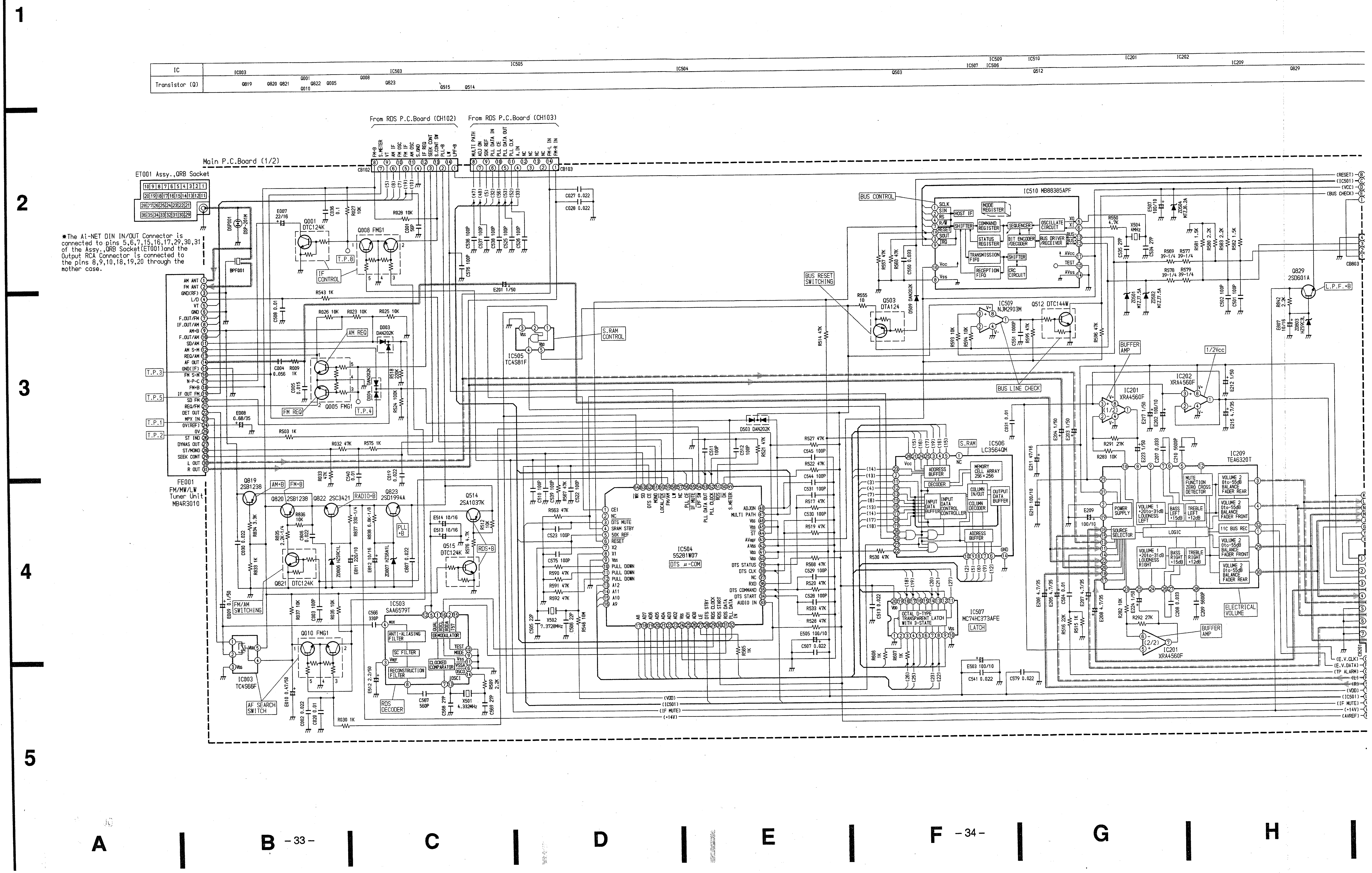

PL412
S422
S426
S424
S421
S423
S427
R423
R436
R435
R445
PL414
LCD401
IC401
IC402
R408
E401
C406
PL408
PL410
CH401
PL407
S414
S413
S412
S415
S416
S417
S420
S419
S418
L401
S407
S402
R406
R403
R404
PL409
S411
S410
ZD401
R413
S409
S405
S404
R412
R442
C403
R414
R409
R421
R437
R438
R439
R411
IC403
S428
PL402
PL404
R420
R419
R410
R446
PL403
S403
S401
PL401
Q404
To CH401
To Main P. C. Board (CB401)

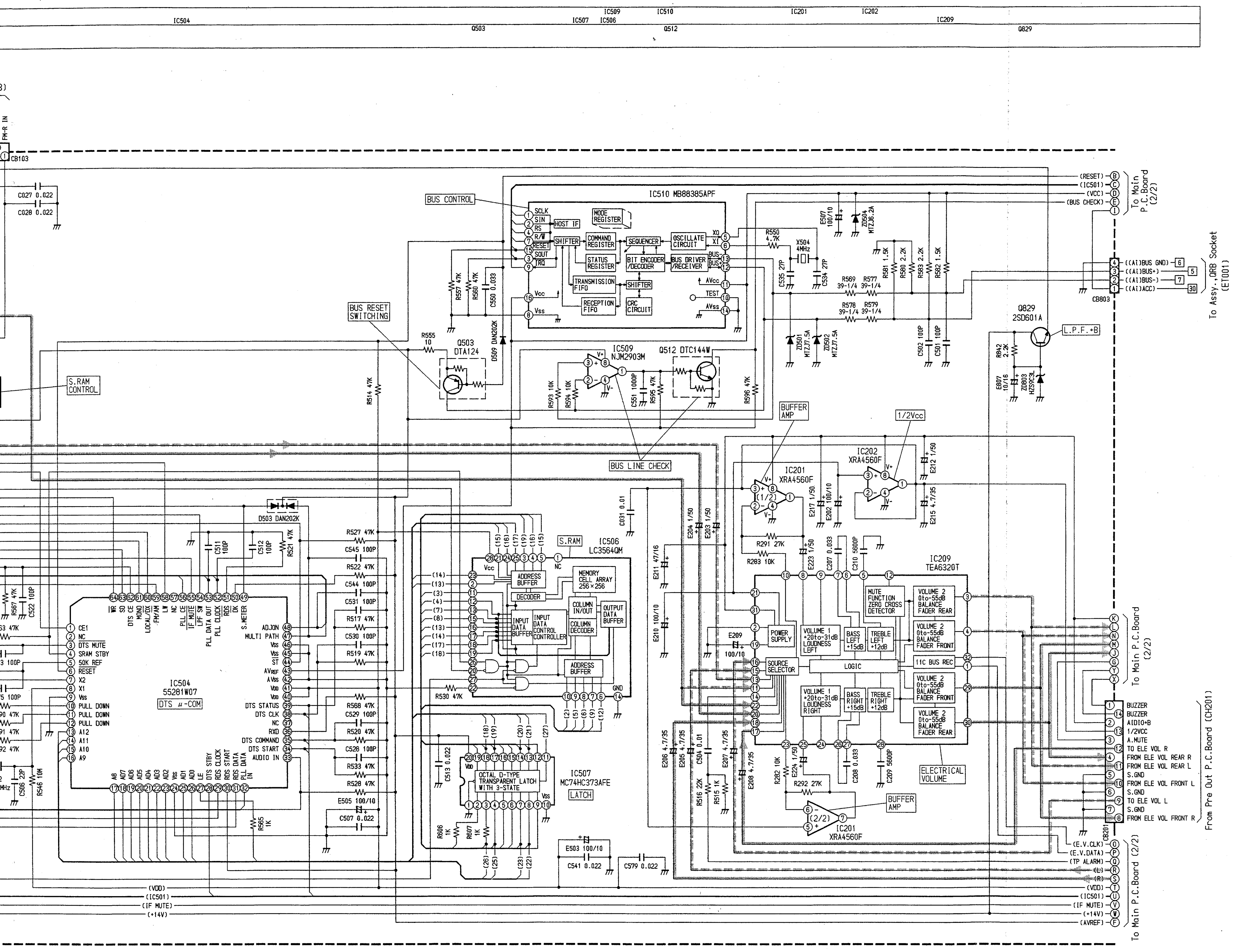
Front P. C. Board


IC106
R141
E112
E111
E110
E109
C140
R140
E108
R142
R143
PANEL-RDS
C102
E102
R122
R144
C103
R103
R102
R105
R101
R104
R108
R107
C107
C104
C105
R106
R109
R111
R112
E101
E104
E103
C101
C110
C112
C111
X101
R120
CH103
CH102
R113
C109
C108
R110
E116
E113
Q105
Q106
C106 (BP)
R129
R131
R132
R133
R135
R136
R137
R138
R139
R130
D101
IC102
Q102
Q103
L101
C130
C133
C134
C135
C136
To CH103
To Main P. C. Board (CB103)
To CH102
To Main P. C. Board (CB102)

RDS P. C. Board

Schematic Diagram (1/4)


1
2
3
4
5
IC
Transistor (Q)
IC003
IC503
IC505
IC504
IC507
IC506
IC509
IC510
IC201
IC202
IC209
Q819
Q820
Q821
Q001
Q010
Q822
Q005
Q008
Q823
Q515
Q514
Q503
Q512
Q829
From RDS P.C.Board (CH102)
From RDS P.C.Board (CH103)
Main P.C.Board (1/2)
CB102
CB103
ET001 Assy.,QRB Socket
*The Ai-NET DIN IN/OUT Connector is connected to pins 5,6,7,15,16,17,29,30,31 of the Assy.,QRB Socket(ET001)and the Output RCA Connector is connected to the pins 8,9,10,18,19,20 through the mother case.
FE001
FM/MW/LW
Tuner Unit
MB4R3010
T.P.3
T.P.5
T.P.1
T.P.2
T.P.8
T.P.4
Q001 DTC124K
Q008 FMG1
IF CONTROL
AM REQ
FM REQ
Q005 FMG1
D003 DAN202K
Q819 2SB1238
Q820 2SB1238
Q822 2SC3421
Q823 2SD1994A
AM+B
FM+B
RADIO+B
PLL +B
Q821 DTC124K
Q514 2SA1037K
Q515 DTC124K
RDS+B
FM/AM SWITCHING
Q010 FMG1
IC003 TC4S66F
AF SEARCH SWITCH
IC503 SAA6579T
ANTI-ALIASING FILTER
SC FILTER
RECONSTRUCTION FILTER
DEMODULATOR
CLOCKED COMPARATOR
RDS DECODER
X501 4.332MHz
IC505 TC4S81F
S.RAM CONTROL
IC504 55281W07
DTS μ-COM
X502 7.3728MHz
D503 DAN202K
IC506 LC35640M
S.RAM
ADDRESS BUFFER
DECODER
MEMORY CELL ARRAY 256×256
COLUMN IN/OUT
COLUMN DECODER
INPUT DATA BUFFER
INPUT DATA CONTROL CONTROLLER
OUTPUT DATA BUFFER
IC507 MC74HC373AFE
OCTAL D-TYPE TRANSPARENT LATCH WITH 3-STATE
LATCH
BUS CONTROL
IC510 MB88385APF
HOST IF
MODE REGISTER
COMMAND REGISTER
SEQUENCER
OSCILLATE CIRCUIT
STATUS REGISTER
BIT ENCODER /DECODER
BUS DRIVER /RECEIVER
TRANSMISSION FIFO
SHIFTER
RECEPTION FIFO
CRC CIRCUIT
BUS RESET SWITCHING
Q503 DTA124
IC509 NJM2903M
Q512 DTC144W
BUS LINE CHECK
X504 4MHz
Q829 2SD601A
L.P.F.+B
BUFFER AMP
1/2Vcc
IC201 XRA4560F
IC202 XRA4560F
IC209 TEA6320T
POWER SUPPLY
SOURCE SELECTOR
LOGIC
MUTE FUNCTION ZERO CROSS DETECTOR
VOLUME 1 +20to-31dB LOUDNESS LEFT
VOLUME 1 +20to-31dB LOUDNESS RIGHT
BASS LEFT ±15dB
BASS RIGHT ±15dB
TREBLE LEFT ±12dB
TREBLE RIGHT ±12dB
VOLUME 2 0to-55dB BALANCE FADER REAR
VOLUME 2 0to-55dB BALANCE FADER FRONT
I²C BUS REC
ELECTRICAL VOLUME
(RESET)
(IC501)
(VCC)
(BUS CHECK)
(E.V.CLK)
(E.V.DATA)
(TP ALARM)
(VDD)
(IF MUTE)
(+14V)
(AVREF)
CB803
A
B
C
D
E
F
G
H


IC504
Q503
IC507
IC509
IC506
IC510
Q512
IC201
IC202
IC209
Q829
IC510 MB88385APF
BUS CONTROL
BUS RESET SWITCHING
S.RAM CONTROL
Q503 DTA124
IC509 NJM2903M
Q512 DTC144W
Q829 2SD601A
L.P.F. +B
BUS LINE CHECK
BUFFER AMP
1/2Vcc
IC201 XRA4560F
IC202 XRA4560F
IC209 TEA6320T
IC504 55281W07
DTS μ-COM
IC506 LC3564QM
S.RAM
IC507 MC74HC373AFE
LATCH
ELECTRICAL VOLUME
SOURCE SELECTOR
POWER SUPPLY
LOGIC
I²C BUS REC
To Main P.C.Board (2/2)
To Assy.,QRB Socket (ET001)
From Pre Out P.C.Board (CH201)
(RESET)
(IC501)
(VCC)
(BUS CHECK)
(A1)BUS GND
(A1)BUS+
(A1)BUS-
(A1)ACC
BUZZER
A(DIO+B
1/2VCC
A.MUTE
TO ELE VOL R
FROM ELE VOL REAR R
FROM ELE VOL REAR L
S.GND
FROM ELE VOL FRONT L
TO ELE VOL L
FROM ELE VOL FRONT R
(E.V.CLK)
(E.V.DATA)
(TP ALARM)
(VDD)
(IC501)
(IF MUTE)
(+14V)
(AVREF)

IC003

		MODE
1	PS / 2.5V	SEEK OFF / ON
2	2.5V / 0V	SEEK OFF / ON
3	0V	
4	9V / 0V	SEEK OFF / ON
5	9V	

IC201

		MODE
1	4.5V	FM
2	4.5V	FM
3	4.5V	1/2 BIAS
4	0V	
5	4.5V	1/2 BIAS
6	4.5V	FM
7	PS	FM
8	9V	

IC202

		MODE
1	4.5V	FM
2	4.5V	FM
3	4.5V	BIAS
4	0V	
5	NC	
6	NC	
7	NC	
8	9V	

IC209

		MODE			MODE
1	4.8V	E.VOL DATA	17	SIG.	CHG (R INPUT)
2	0V		18	SIG.	TAPE (R INPUT)
3	SIG.	REAR L OUT	19	8.8V	FM
4	SIG.	FRONT L OUT	20	SIG.	FM (R INPUT)
5	4.4V	FM	21	4.4V	REF OUT
6	4.4V	FM	22	4.4V	FM
7	4.4V	FM	23	4.4V	FM
8	4.3V	FM	24	NC	
9	NC		25	4.3V	FM
10	4.4V	FM	26	4.4V	FM
11	SIG.	AM (L INPUT)	27	4.4V	FM
12	NC		28	4.4V	FM
13	SIG.	FM (L INPUT)	29	SIG.	FRONT R OUTPUT
14	SIG.	TP ALM INPUT	30	SIG.	REAR R OUTPUT
15	SIG.	TAPE (L INPUT)	31	8.8V	
16	SIG.	CHG (L INPUT)	32	4.8V	CLK

IC505

		MODE
1	4.7V	FM
2	4.8V	FM
3	0V	
4	4.8V	FM
5	4.7V	

IC503

		MODE
1	NC	
2	PS	DATA
3	2.5V	FM
4	2.5V	FM
5	5V	
6	0V	
7	2.5V	FM
8	2.5V	FM
9	0V	
10	0V	
11	0V	
12	5V	
13	PS	X' TAL
14	PS	X' TAL
15	NC	
16	PS	CLK

IC506

		MODE			MODE
1	NC		15	PS	FM
2	PS	FM	16	PS	FM
3	PS	FM	17	PS	FM
4	PS	FM	18	PS	FM
5	PS	FM	19	PS	FM
6	PS	FM	20	PS	FM
7	PS	FM	21	PS	FM
8	PS	FM	22	0V	FM
9	PS	FM	23	PS	FM
10	PS	FM	24	PS	FM
11	PS	FM	25	PS	FM
12	PS	FM	26	5V	FM
13	PS	FM	27	5V	FM
14	0V		28	5V	

IC510

		MODE
1	PS	DISC
2	PS	DISC
3	PS	DISC
4	PS	DISC
5	PS	DISC
6	PS	DISC
7	PS	DISC
8	0V	
9	PS	DISC
10	0V	
11	5V	DISC
12	PS	DISC
13	PS	DISC
14	0V	
15	PS	DISC
16	5V	

IC509

		MODE
1	PS	DISC
2	PS	DISC
3	PS	DISC
4	0V	
5	NC	
6	NC	
7	NC	
8	5V	

IC507

		MODE
1	0V	
2	PS	FM
3	PS	FM
4	PS	FM
5	PS	FM
6	PS	FM
7	PS	FM
8	PS	FM
9	PS	FM
10	0V	
11	PS	FM
12	PS	FM
13	PS	FM
14	PS	FM
15	PS	FM
16	PS	FM
17	PS	FM
18	PS	FM
19	PS	FM
20	5V	

IC504

		MODE			MODE
1	PS	FM	33	PS	FM
2	0V		34	PS	FM
3	0V / 5V	DTS MUTE ON / OFF	35	5V	DTS μ-COM (CMD)
4	5V	FM	36	5.1V	FM
5	5V	FM	37	PS	FM
6	0V / 5V	RESET ON / OFF	38	PS	FM
7	PS	FM	39	PS	FM
8	PS	FM	40	5V	FM
9	0V		41	5V	FM
10	PS	FM	42	0V	
11	PS	FM	43	5V	FM
12	PS	FM	44	0V / 5V	ST / MONO
13	PS	FM	45	0V	
14	PS	FM	46	0V	
15	PS	FM	47	4.9V	FM
16	PS	FM	48	5V	FM
17	PS	FM	49	5V	ANT 120dBμ INPUT
18	PS	FM	50	5V	FM
19	PS	FM	51	5V	
20	PS	FM	52	4.8V	TUNER SEEK
21	PS	FM	53	5V	
22	PS	FM	54	0V / 5V	SEEK ON / OFF
23	PS	FM	55	5V / 0V	IF MUTE ON / OFF
24	0V		56	PS	SEEK
25	PS	FM	57	NC	
26	PS	FM	58	5V	LW
27	PS	FM	59	5V / 0V	FM / AM
28	5V	POWER ON	60	4.9V / 0V	LOCAL / DX
29	PS	FM	61	5V / 0V	MONO ON / OFF
30	5V		62	5V	FM
31	PS		63	5V	DURING SEEK at STATION
32	5V / PS	SEEK OFF / ON	64	PS	FM

Q005

		MODE
1	8.2V / 0V	IF REQ ON / OFF
2	1V / 0V	IF REQ ON / OFF
3	4.7V / 0V	IF REQ ON / OFF
4	0V	
5	4.7V / 0V	IF REQ ON / OFF

Q008

		MODE
1	0V / 6.5V	IF MUTE ON / OFF
2	0V / 9V	SEEK ON / OFF
3	5.2V / 0V	SEEK ON / OFF
4	0V	
5	0V / 5V	IF MUTE ON / OFF

Q010

		MODE
1	0V / 9V	SEEK ON / OFF
2	5.2V / 0V	SEEK ON / OFF
3	0V / 4.8V	SEEK ON / OFF
4	0V	
5	5.2V / 0V	SEEK ON / OFF

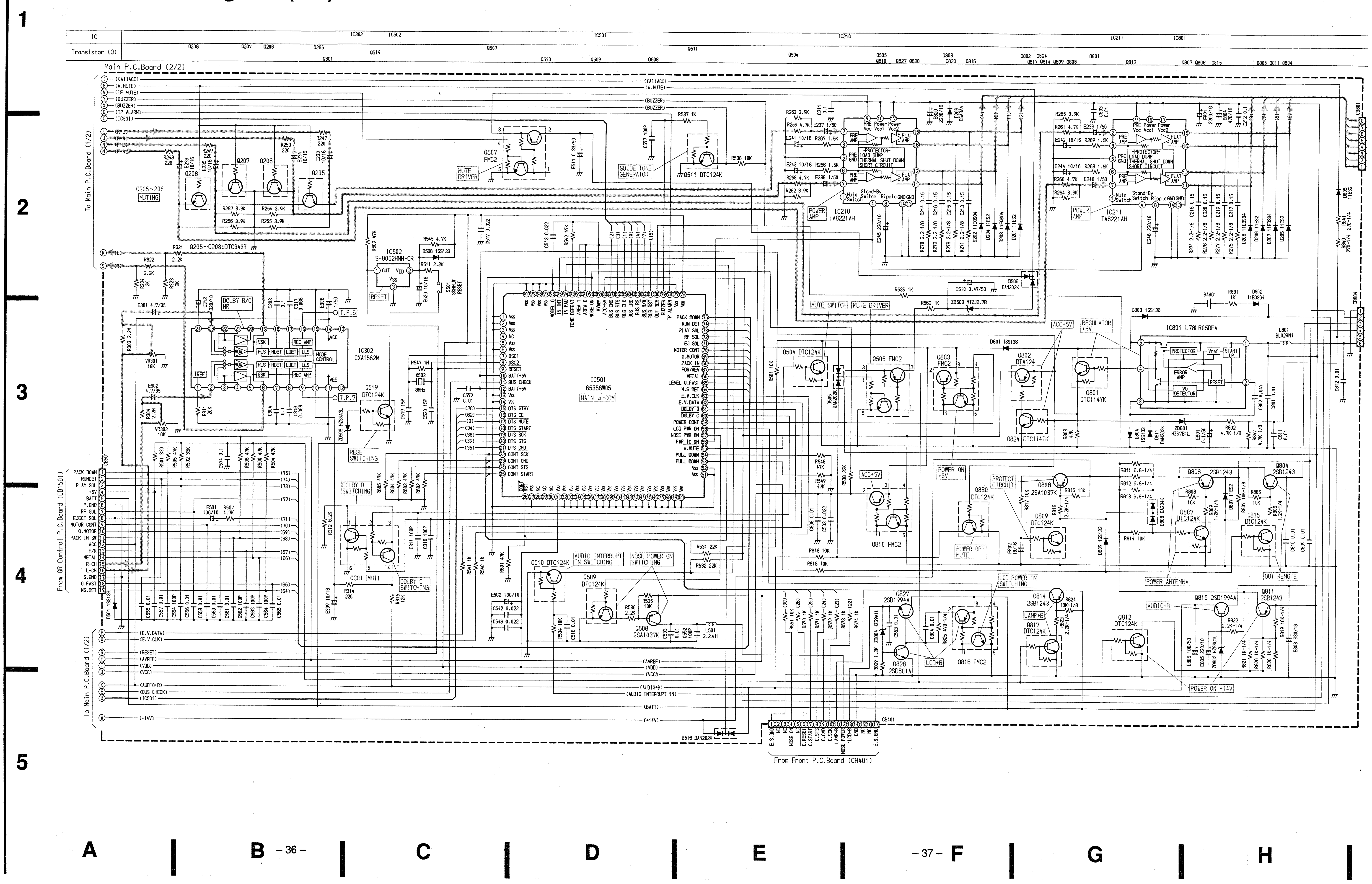
	E	C	B	MODE
Q001	0V	0V	6.5V	SEEK ON / OFF
Q503	5V	2V	5V	
Q512	0V	PS	PS	
Q514	5.2V	5.1V / 0.9V	4.4V / 5.2V	FM ON / OFF
Q515	0V	0V / 5.1V	9.1V / 0.6V	FM ON / OFF
Q819	9.3V / 9.3V	0V / 9.3V	9.3V / 8.6V	FM / AM
Q820	9.3V / 9.3V	9.3V / 0.7V	8.6V / 9.3V	FM / AM
Q821	0V	0V / 9.3V	5V / 0V	FM / AM
Q822	9.3V / 0V	14V / 0V	9.9V / 0V	POWER ON / OFF
Q823	5V / 0V	14V / 0V	5.7V / 0V	POWER ON / OFF
Q829	0V / 9.9V	0V / 14V	0V / 9.3V	POWER OFF / ON

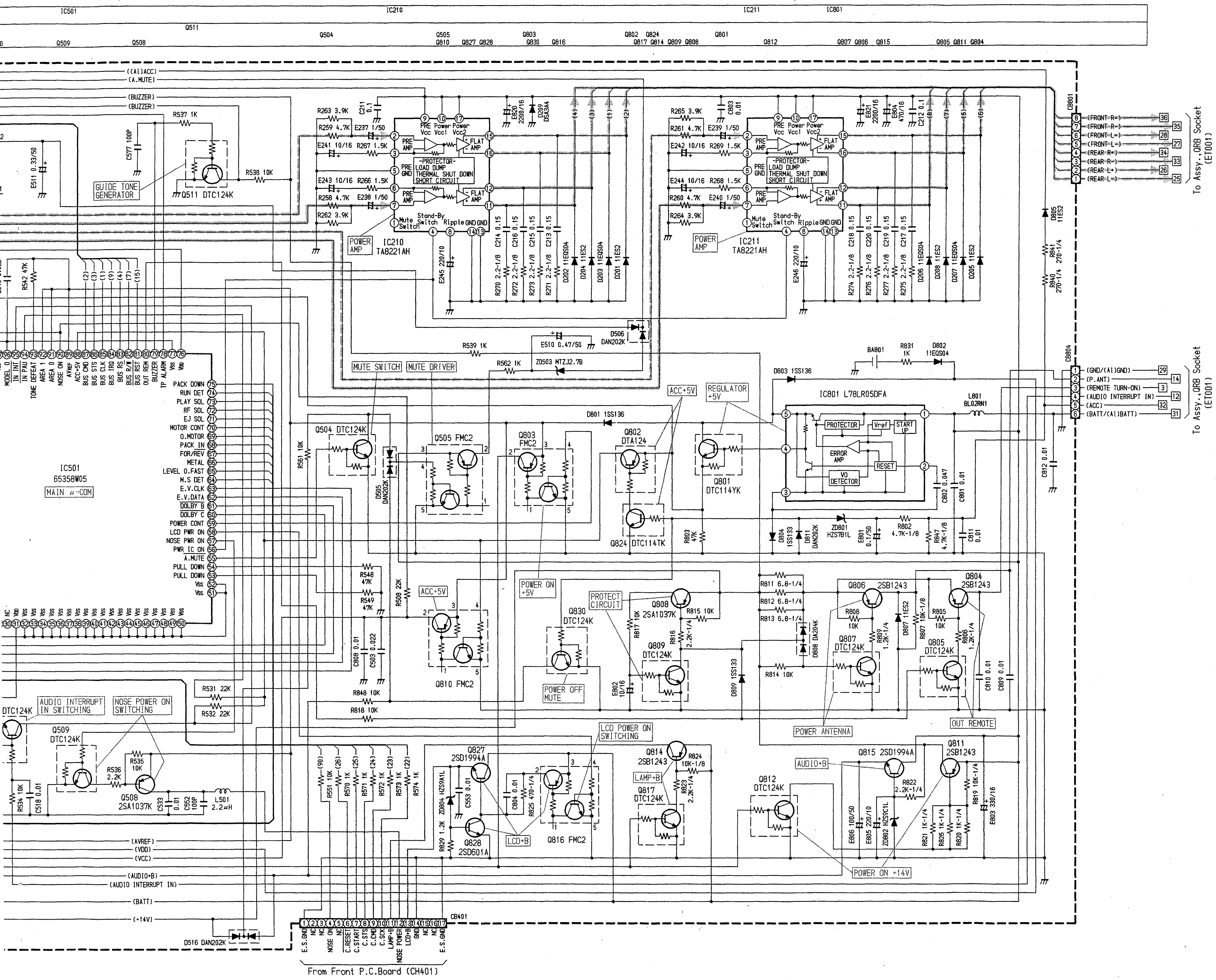
<Measuring Conditions>

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multi Meter
3. Measuring Reference Point : Between Ground
4. Measuring Condition : FM ..... Standard Input Receive, 1W Output

NOTES:
1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1{,}000{,}000}$

Schematic Diagram (2/4)


1
2
3
4
5
A
B
C
D
E
F
G
H
IC
Transistor (Q)
Main P.C.Board (2/2)
To Main P.C.Board (1/2)
From GR Control P.C.Board (CB1501)
From Front P.C.Board (CH401)
Q205~208
MUTING
Q205~Q208:DTC343T
MUTE DRIVER
Q507 FMC2
GUIDE TONE GENERATOR
Q511 DTC124K
POWER AMP
IC210 TA8221AH
IC211 TA8221AH
PRE AMP
FLAT AMP
Power Vcc
-PROTECTOR- LOAD DUMP THERMAL SHUT DOWN SHORT CIRCUIT
Mute Switch
Stand-By Switch
Ripple
GND
IC502 S-8052HNM-CR
RESET
DOLBY B/C NR
IC302 CXA1562M
T.P.6
T.P.7
Q519 DTC124K
RESET SWITCHING
DOLBY B SWITCHING
DOLBY C SWITCHING
Q301 IMH11
IC501 65358W05
MAIN µ-COM
PACK DOWN
RUN DET
PLAY SOL
RF SOL
EJ SOL
MOTOR CONT
O.MOTOR
PACK IN
FOR/REV
METAL
LEVEL O.FAST
M.S DET
E.V.CLK
E.V.DATA
DOLBY B
DOLBY C
POWER CONT
LCD PWR ON
NOSE PWR ON
PWR IC ON
A.MUTE
PULL DOWN
DTS STBY
DTS CE
DTS MUTE
DTS START
DTS SCK
DTS STS
DTS CMD
CONT SCK
CONT CMD
CONT STS
CONT START
BUS CHECK
BATT+5V
OSC1
OSC2
Q510 DTC124K
AUDIO INTERRUPT IN SWITCHING
Q509 DTC124K
NOSE POWER ON SWITCHING
Q508 2SA1037K
MUTE SWITCH
MUTE DRIVER
Q504 DTC124K
Q505 FMC2
Q803 FMC2
Q802 DTA124
Q824 DTC114TK
Q801 DTC114YK
ACC+5V
REGULATOR +5V
IC801 L78LR050FA
PROTECTOR
Vref
START UP
ERROR AMP
RESET
VO DETECTOR
Q810 FMC2
POWER ON +5V
Q830 DTC124K
POWER OFF MUTE
PROTECT CIRCUIT
Q808 2SA1037K
Q809 DTC124K
Q806 2SB1243
Q807 DTC124K
Q804 2SB1243
Q805 DTC124K
POWER ANTENNA
OUT REMOTE
Q827 2SD1994A
Q828 2SD601A
LCD+B
Q816 FMC2
LCD POWER ON SWITCHING
Q814 2SB1243
LAMP+B
Q817 DTC124K
Q812 DTC124K
AUDIO+B
Q815 2SD1994A
Q811 2SB1243
POWER ON +14V
D516 DAN202K
CB401
CB801
CB804
CB501


IC501
IC210
IC211
IC801
Q511
Q509
Q508
Q504
Q505
Q810
Q827
Q826
Q803
Q830
Q816
Q802
Q824
Q817
Q814
Q809
Q808
Q801
Q812
Q807
Q806
Q815
Q805
Q811
Q804
(A1)ACC
(A.MUTE)
(BUZZER)
GUIDE TONE GENERATOR
Q511 DTC124K
PRE AMP
PRE GND
FLAT AMP
Power Vcc
-PROTECTOR- LOAD DUMP THERMAL SHUT DOWN SHORT CIRCUIT
Mute Switch
Stand-By Switch
Ripple
POWER AMP
IC210 TA8221AH
IC211 TA8221AH
CB801
(FRONT-R+)
(FRONT-R-)
(FRONT-L+)
(FRONT-L-)
(REAR-R+)
(REAR-R-)
(REAR-L+)
(REAR-L-)
To Assy.,ORB Socket (ET001)
CB804
(GND/(A1)GND)
(P.ANT)
(REMOTE TURN-ON)
(AUDIO INTERRUPT IN)
(ACC)
(BATT/(A1)BATT)
IC501 65358W05 MAIN μ-COM
MUTE SWITCH
MUTE DRIVER
ACC+5V
REGULATOR +5V
IC801 L78LR05DFA
PROTECTOR
Vref
START UP
ERROR AMP
VO DETECTOR
RESET
Q504 DTC124K
Q505 FMC2
Q803 FMC2
Q802 DTA124
Q801 DTC114YK
Q824 DTC114TK
POWER ON +5V
PROTECT CIRCUIT
Q808 2SA1037K
Q830 DTC124K
Q809 DTC124K
Q810 FMC2
POWER OFF MUTE
Q806 2SB1243
Q804 2SB1243
Q807 DTC124K
Q805 DTC124K
POWER ANTENNA
OUT REMOTE
AUDIO INTERRUPT IN SWITCHING
NOSE POWER ON SWITCHING
Q509 DTC124K
Q508 2SA1037K
LCD POWER ON SWITCHING
Q827 2SD1994A
Q828 2SD601A
Q816 FMC2
LCD+B
Q814 2SB1243
LAMP+B
Q817 DTC124K
AUDIO+B
Q812 DTC124K
Q815 2SD1994A
Q811 2SB1243
POWER ON +14V
(AVREF)
(VDD)
(VCC)
(AUDIO+B)
(AUDIO INTERRUPT IN)
(BATT)
(+14V)
D516 DAN202K
CB401
From Front P.C.Board (CH401)

IC210

		MODE
1	NC	
2	SIG.	L INPUT
3	5.3V	FM
4	4.8V	STBY
5	0V	
6	5.3V	FM
7	SIG.	R INPUT
8	5.3V	FM
9	14V	FM
10	14V	FM
11	SIG.	R OUTPUT
12	SIG.	R OUTPUT
13	0V	
14	0V	
15	SIG.	L OUTPUT
16	SIG.	L OUTPUT
17	14V	

IC211

		MODE
1	NC	
2	SIG.	L INPUT
3	5.3V	FM
4	4.8V	STBY
5	0V	
6	5.3V	FM
7	SIG.	R INPUT
8	5.3V	FM
9	14V	FM
10	14V	FM
11	SIG.	R OUTPUT
12	SIG.	R OUTPUT
13	0V	
14	0V	
15	SIG.	L OUTPUT
16	SIG.	L OUTPUT
17	14V	

IC302

		MODE					MODE
1	1.2V		9	NC	17	0.35V	
2	SIG.	R INPUT	10	0V	18	0.35V	
3	NC		11	0V	19	SIG.	L OUTPUT
4	NC		12	NC	20	NC	
5	NC		13	NC	21	NC	
6	SIG.	R OUTPUT	14	8.7V	22	NC	
7	0.35V		15	0V	23	SIG.	L INPUT
8	0.35V		16	NC	24	4.3V	

IC502

		MODE
1	0V	FM
2	4.8V	FM
3	0V	

IC801

1	14.2V
2	6.5V
3	0V
4	5V
5	5V

IC501

		MODE			MODE
1	0V		51	0V	
2	0V		52	0V	
3	0V		53	5V	IN INT
4	NC		54	5V / 0V	TAPE / FM
5	4.8V	FM	55	5V / 0V	A.MUTE OFF / ON
6	0V		56	5.1V / 0V	POWER ON / OFF
7	PS	FM	57	5.1V / 0V	NOSE ON / OFF
8	PS	FM	58	5.1V / 0V	POWER ON / OFF
9	4.8V	FM	59	5.1V / 0V	POWER ON / OFF
10	4.7V	FM	60	5.1V / 0V	DOLBY B / C
11	PS	FM	61	5.1V / 0V	DOLBY C / B
12	4.9V	FM	62	5.1V	FM
13	0V		63	5.1V	FM
14	0V		64	5V	M.S
15	5V	POWER ON	65	5V	FF. REW
16	5.1V	FM	66	5V	TAPE METAL
17	5V	FM	67	5.2V / 0V	TAPE FOR / REV
18	PS	FM	68	5.1V / 0V	PACK IN / OUT
19	PS	FM	69	5V	TAPE PLAY
20	PS	FM	70	5V	TAPE PLAY
21	PS	FM	71	3.8V	EJECT
22	PS	FM	72	5V	PACK IN
23	PS	FM	73	5V	TAPE PLAY
24	PS	FM	74	PS	TAPE PLAY
25	PS	FM	75	5V	PACK IN
26	5V	FM	76	5V	FM
27	0V		77	0V	
28	NC		78	4.9V	TP OFF ALM
29	NC		79	4.8V	BUZZER
30	NC		80	5V	POWER ON
31	5V	FM	81	5V / 0V	RESET OFF / ON
32	0V		82	PS	
33	0V		83	PS	
34	0V		84	PS	
35	0V		85	PS	
36	0V		86	PS	
37	0V		87	PS	
38	0V		88	4.8V	FM
39	0V		89	5V	
40	0V		90	2.3V / 5V	NOSE ON / OFF
41	0V		91	5V	FM
42	0V		92	5V	FM
43	0V		93	5V	FM
44	0V		94	4.8V	FM
45	0V		95	0V / 4.8V	ININT ON / OFF
46	0V		96	0V	
47	0V		97	0V	
48	0V		98	0V	
49	0V		99	0V	
50	0V		100	0V	

Q301

		MODE
1	0V / 3.7V / 0V	DOLBY OFF / B / C
2	4.9V / 4.9V / 0V	DOLBY OFF / B / C
3	0V / 3.7V / 0V	DOLBY OFF / B / C
4	0V / 4.3V / 8.2V	DOLBY OFF / B / C
5	5V / 0V / 5V	DOLBY OFF / B / C
6	0V	

Q505

		MODE
1	NC	
2	14V / 0V	ACC OFF MUTE ON / OFF
3	14V	
4	9V / 0V	MUTE ON / OFF
5	0V	

Q507

		MODE
1	NC	
2	14V / 0V	IF MUTE ON / OFF
3	14V	
4	5V / 0V	IF MUTE ON / OFF
5	0V	

Q803

		MODE
1	NC	
2	5V	POWER OFF
3	5V	
4	5V	POWER OFF
5	0V	

Q810

		MODE
1	NC	
2	4.9V	ACC OFF
3	5V	
4	4V	ACC OFF
5	0V	

Q816

		MODE
1	NC	
2	13.9V	LCD POWER ON
3	14V	
4	4.9V	LCD POWER ON
5	0V	

	E	C	B	MODE
Q205	0V	0V	3.75V / 0V	MUTE ON / OFF
Q206	0V	0V	3.75V / 0V	MUTE ON / OFF
Q207	0V	0V	3.75V / 0V	MUTE ON / OFF
Q208	0V	0V	3.75V / 0V	MUTE ON / OFF
Q504	0V	10V / 0V	0V / 5V	MUTE ON / OFF
Q508	5V	5V / 0V	4V / 5V	NOSE POWER ON / OFF
Q509	0V	0V / 5V	4.9V / 0V	NOSE POWER ON / OFF
Q510	0V	4.8V / 0V	0V / 10.4V	IN INT ON / OFF
Q511	0V	14.2V / 0V	4.6V / 0V	BUZZER ON / OFF
Q519	0V	0V	6V	RESET ON / OFF
Q801	4V	5V	4.8V	
Q802	4V	4V	0V	ACC OFF
Q804	13.8V	13.8V	13.2V	OUT REMOTE ON
Q805	0V	0.1V	3.55V	OUT REMOTE ON
Q806	13.8V	13.8V	13.2V	
Q807	0V	0.1V	3.5V	
Q808	14V	0V	14V	
Q809	0V	14V	0V	
Q811	13.9V	13.9V	13.2V	POWER OFF
Q812	0V	0.7V	4.9V	POWER OFF
Q814	13.9V	13.8V	13.2V	POWER OFF
Q815	8.6V	14V	9.2V	POWER OFF
Q817	0V	0.06V	4.95V	POWER OFF
Q824	0V	0V	0.5V	ACC OFF
Q827	8.8V	13.9V	5.4V	LCD POWER ON
Q828	0V	9.4V	0.5V	LCD POWER ON
Q830	0V	9V / 0V	0V / 5V	ACC OFF / ON

<Measuring Conditions>

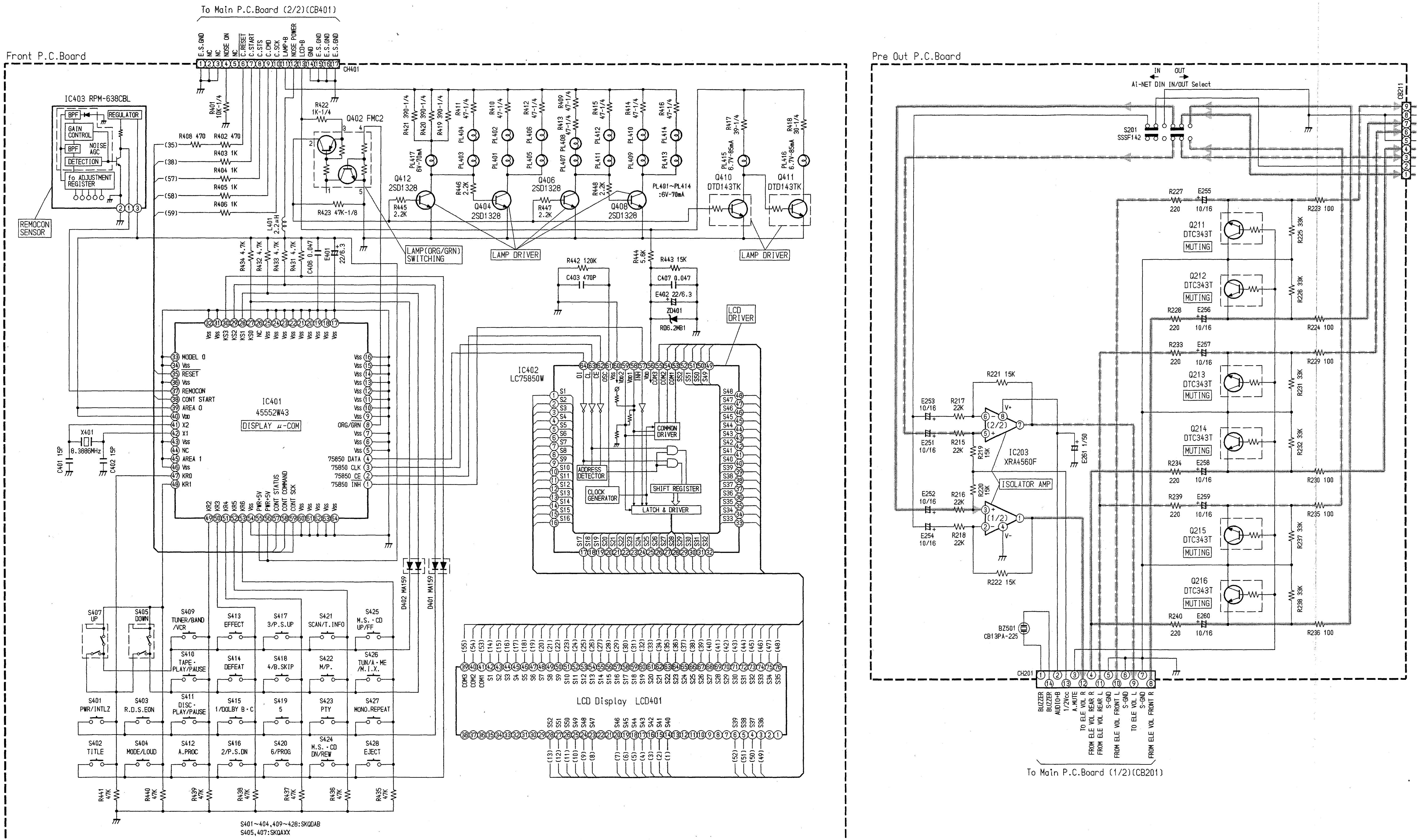
1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multi Meter
3. Measuring Reference Point : Between Ground
4. Measuring Condition : FM ..... Standard Input Receive, 1W Output

NOTES:

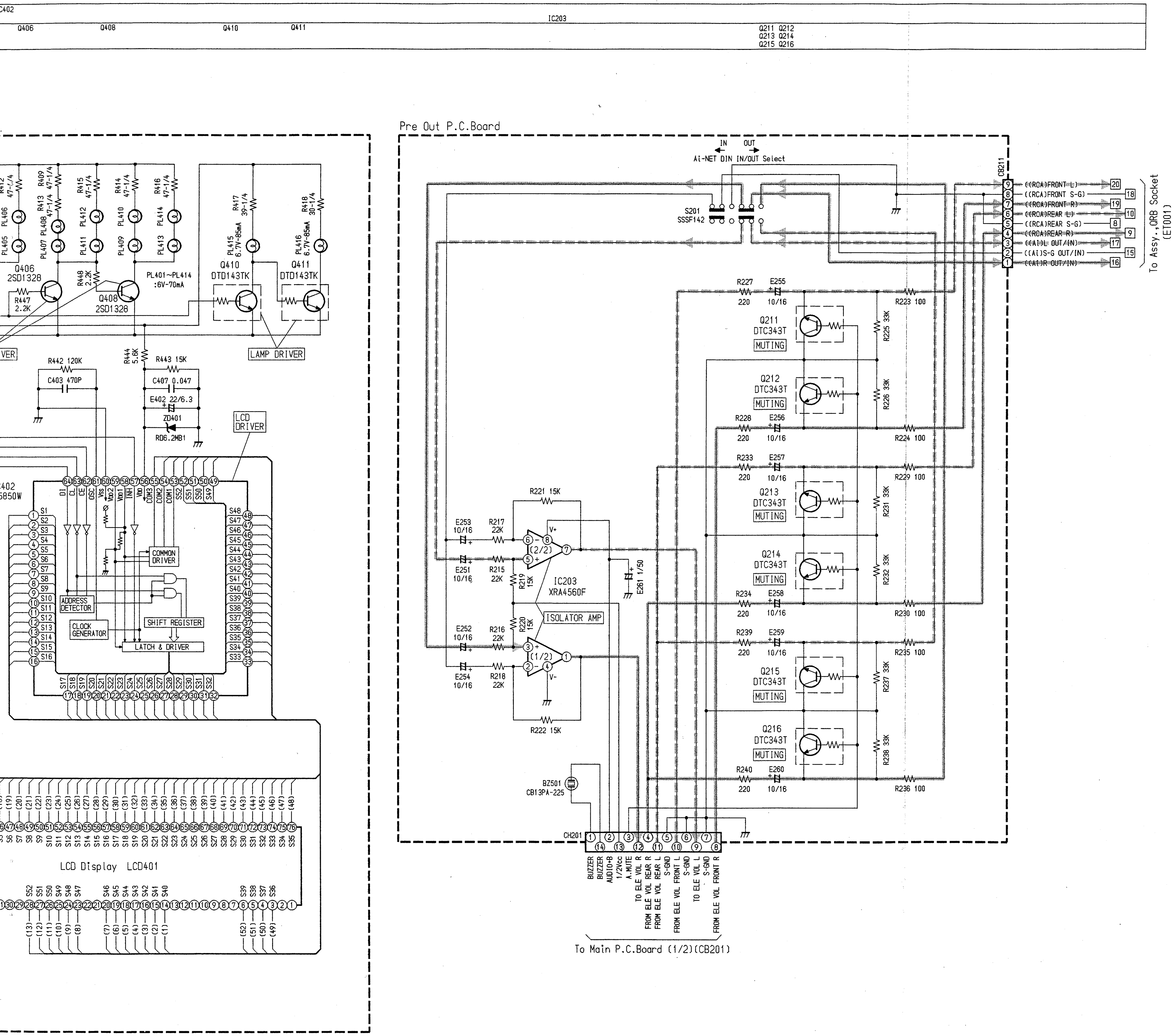
1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. P = $\frac{1}{1,000,000}$

Schematic Diagram (3/4)

IC	IC403	IC401	IC402					IC203
Transistor (Q)	Q402	Q412	Q404	Q406	Q408	Q410	Q411	Q211 Q212 Q213 Q214 Q215 Q216



To Main P.C.Board (2/2)(CB401)
Front P.C.Board
CH401
E.S.GND
NC
NC
NOISE ON
NC
C.RESET
C.START
C.STS
C.CMD
C.SCK
LAMP-B
NOISE POWER
LCD-B
GND
E.S.GND
E.S.GND
E.S.GND
IC403 RPM-638CBL
BPF
REGULATOR
GAIN CONTROL
BPF
NOISE AGC
DETECTION
fo ADJUSTMENT REGISTER
REMOCON SENSOR
R408 470
R402 470
R403 1K
R404 1K
R405 1K
R406 1K
R401 10K-1/4
R422 1K-1/4
Q402 FMC2
R423 47K-1/8
L401 2.2μH
R434 4.7K
R432 4.7K
R433 4.7K
R431 4.7K
C406 0.047
E401 22/6.3
LAMP(ORG/GRN) SWITCHING
R421 390-1/4
R420 390-1/4
R419 390-1/4
R411 47-1/4
R410 47-1/4
R412 47-1/4
R409 47-1/4
R413 47-1/4
R415 47-1/4
R414 47-1/4
R416 47-1/4
R417 39-1/4
R418 30-1/4
PL417 6V-70mA
PL401~PL414 :6V-70mA
PL415 6.7V-85mA
PL416 6.7V-85mA
Q412 2SD1328
Q404 2SD1328
Q406 2SD1328
Q408 2SD1328
Q410 DTD143TK
Q411 DTD143TK
R445 2.2K
R446 2.2K
R447 2.2K
R448 2.2K
LAMP DRIVER
LAMP DRIVER
R444 5.6K
R443 15K
R442 120K
C403 470P
C407 0.047
E402 22/6.3
ZD401 RD6.2MB1
LCD DRIVER
IC401 45552W43
DISPLAY μ-COM
MODEL 0
RESET
REMOCON
CONT START
AREA 0
X2
X1
AREA 1
KR0
KR1
ORG/GRN
75850 DATA
75850 CLK
75850 CE
75850 INH
PWR+5V
CONT STATUS
CONT COMMAND
CONT SCK
X401 8.3886MHz
C401 15P
C402 15P
IC402 LC75850W
ADDRESS DETECTOR
CLOCK GENERATOR
COMMON DRIVER
SHIFT REGISTER
LATCH & DRIVER
D402 MA159
D401 MA159
S407 UP
S405 DOWN
S409 TUNER/BAND /VCR
S413 EFFECT
S417 3/P.S.UP
S421 SCAN/T.INFO
S425 M.S.·CD UP/FF
S410 TAPE·PLAY/PAUSE
S414 DEFEAT
S418 4/B.SKIP
S422 M/P.
S426 TUN/A·ME /M.I.X.
S401 PWR/INTLZ
S403 R.D.S.EON
S411 DISC·PLAY/PAUSE
S415 1/DOLBY B·C
S419 5
S423 PTY
S427 MONO.REPEAT
S402 TITLE
S404 MODE/LOUD
S412 A.PROC
S416 2/P.S.DN
S420 6/PROG
S424 M.S.·CD DN/REW
S428 EJECT
R441 47K
R440 47K
R439 47K
R438 47K
R437 47K
R436 47K
R435 47K
S401~404,409~428:SKQDAB
S405,407:SKQAXX
LCD Display LCD401
Pre Out P.C.Board
IN OUT
AI-NET DIN IN/OUT Select
S201 SSSF142
CB211
R227 220
E255 10/16
R223 100
Q211 DTC343T
MUTING
R225 33K
Q212 DTC343T
R226 33K
R228 220
E256 10/16
R224 100
R233 220
E257 10/16
R229 100
Q213 DTC343T
R231 33K
Q214 DTC343T
R232 33K
R234 220
E258 10/16
R230 100
R239 220
E259 10/16
R235 100
Q215 DTC343T
R237 33K
Q216 DTC343T
R238 33K
R240 220
E260 10/16
R236 100
R221 15K
E253 10/16
R217 22K
E251 10/16
R215 22K
R219 15K
R220 15K
E261 1/50
IC203 XRA4560F
ISOLATOR AMP
E252 10/16
R216 22K
E254 10/16
R218 22K
R222 15K
BZ501 CB13PA-225
CH201
BUZZER
BUZZER
AUDIO+B
1/2Vcc
A.MUTE
TO ELE VOL R
FROM ELE VOL REAR R
FROM ELE VOL REAR L
S-GND
FROM ELE VOL FRONT L
S-GND
TO ELE VOL L
S-GND
FROM ELE VOL FRONT R
To Main P.C.Board (1/2)(CB201)
1
2
3
4
5
A
B
C
D
E
F
G
H


IC203
Q406
Q408
Q410
Q411
Q211 Q212
Q213 Q214
Q215 Q216
Pre Out P.C.Board
IN OUT
Ai-NET DIN IN/OUT Select
S201
SSSF142
CB211
((RCA)FRONT L)
((RCA)FRONT S-G)
((RCA)FRONT R)
((RCA)REAR L)
((RCA)REAR S-G)
((RCA)REAR R)
((Ai)L OUT/IN)
((Ai)S-G OUT/IN)
((Ai)R OUT/IN)
To Assy.,ORB Socket (ET001)
Q406
2SD1328
Q408
2SD1328
Q410
DTD143TK
Q411
DTD143TK
PL401~PL414
:6V-70mA
PL415
6.7V-85mA
PL416
6.7V-85mA
LAMP DRIVER
LCD DRIVER
R442 120K
C403 470P
R443 15K
C407 0.047
E402 22/6.3
ZD401
RD6.2MB1
IC402
LC75850W
COMMON DRIVER
ADDRESS DETECTOR
CLOCK GENERATOR
SHIFT REGISTER
LATCH & DRIVER
LCD Display LCD401
Q211
DTC343T
MUTING
Q212
DTC343T
MUTING
Q213
DTC343T
MUTING
Q214
DTC343T
MUTING
Q215
DTC343T
MUTING
Q216
DTC343T
MUTING
R221 15K
R222 15K
IC203
XRA4560F
ISOLATOR AMP
E261 1/50
BZ501
CB13PA-225
CH201
BUZZER
BUZZER
AUDIO+B
1/2Vcc
A.MUTE
TO ELE VOL R
FROM ELE VOL REAR R
FROM ELE VOL REAR L
S-GND
FROM ELE VOL FRONT L
S-GND
TO ELE VOL L
S-GND
FROM ELE VOL FRONT R
To Main P.C.Board (1/2)(CB201)

IC401

		MODE					MODE			MODE
1	4.9V	LC75850W INH	17	0V	33	0V	MODEL	49	0V	
2	PS	LC75850W CE	18	0V	34	0V		50	0V	
3	PS	LC75850W CLK	19	0V	35	4.9V		51	0V	
4	PS	LC75850W DATA	20	0V	36	0V		52	0V	
5	0V		21	0V	37	4.9V	REMOCOM	53	0V	
6	0V		22	0V	38	PS		54	0V	
7	0V		23	0V	39	4.9V	AREA 0	55	4.9V	POWER +5
8	0V / 4.9V	ORG / GRN	24	0V	40	4.9V		56	4.9V	POWER +5
9	0V		25	0V	41	PS	X' TAL	57	PS	
10	0V		26	NC	42	PS	X' TAL	58	PS	
11	0V		27	PS	43	0V		59	PS	
12	0V		28	PS	44	NC		60	0V	
13	0V		29	PS	45	0V	AREA 1	61	0V	
14	0V		30	PS	46	0V		62	0V	
15	0V		31	0V	47	0V		63	0V	
16	0V		32	0V	48	0V		64	0V	

IC402

		MODE
1~55	PS	
56	5.5V	
57	4.9V	INH
58	NC	
59	NC	
60	0V	
61	4.9V	
62	PS	
63	PS	
64	PS	

IC403

		MODE
1	PS	REMOCON USED
2	0V	
3	4.9V	

IC203

		MODE
1	SIG.	Ai-NET IN
2	SIG.	Ai-NET IN
3	SIG.	Ai-NET IN
4	0V	
5	SIG.	Ai-NET IN
6	SIG.	Ai-NET IN
7	SIG.	Ai-NET IN
8	9.1V	

Q402

		MODE
1	NC	
2	0V / 5.8V	GRN / ORG
3	8.8V / 5.8V	GRN / ORG
4	0V / 4.9V	GRN / ORG
5	0V	

	E	C	B	MODE
Q211	0V	0V	3.9V / 0V	MUTE ON / OFF
Q212	0V	0V	3.9V / 0V	MUTE ON / OFF
Q213	0V	0V	3.9V / 0V	MUTE ON / OFF
Q214	0V	0V	3.9V / 0V	MUTE ON / OFF
Q215	0V	0V	3.9V / 0V	MUTE ON / OFF
Q216	0V	0V	3.9V / 0V	MUTE ON / OFF
Q404	0V	0.1V / 13.9V	9.6V / 0.2V	GRN / ORG
Q406	0V	13.9V / 0.2V	0V / 4.1V	GRN / ORG
Q408	0V	0.1V / 13.9V	9.6V / 0.2V	GRN / ORG
Q410	0V	8.7V / 0.1V	0V / 5.8V	GRN / ORG
Q411	0V	0.1V / 8.7V	8.7V / 0.1V	GRN / ORG
Q412	0V	13.9V / 0.2V	0V / 4.1V	GRN / ORG

<Measuring Conditions>

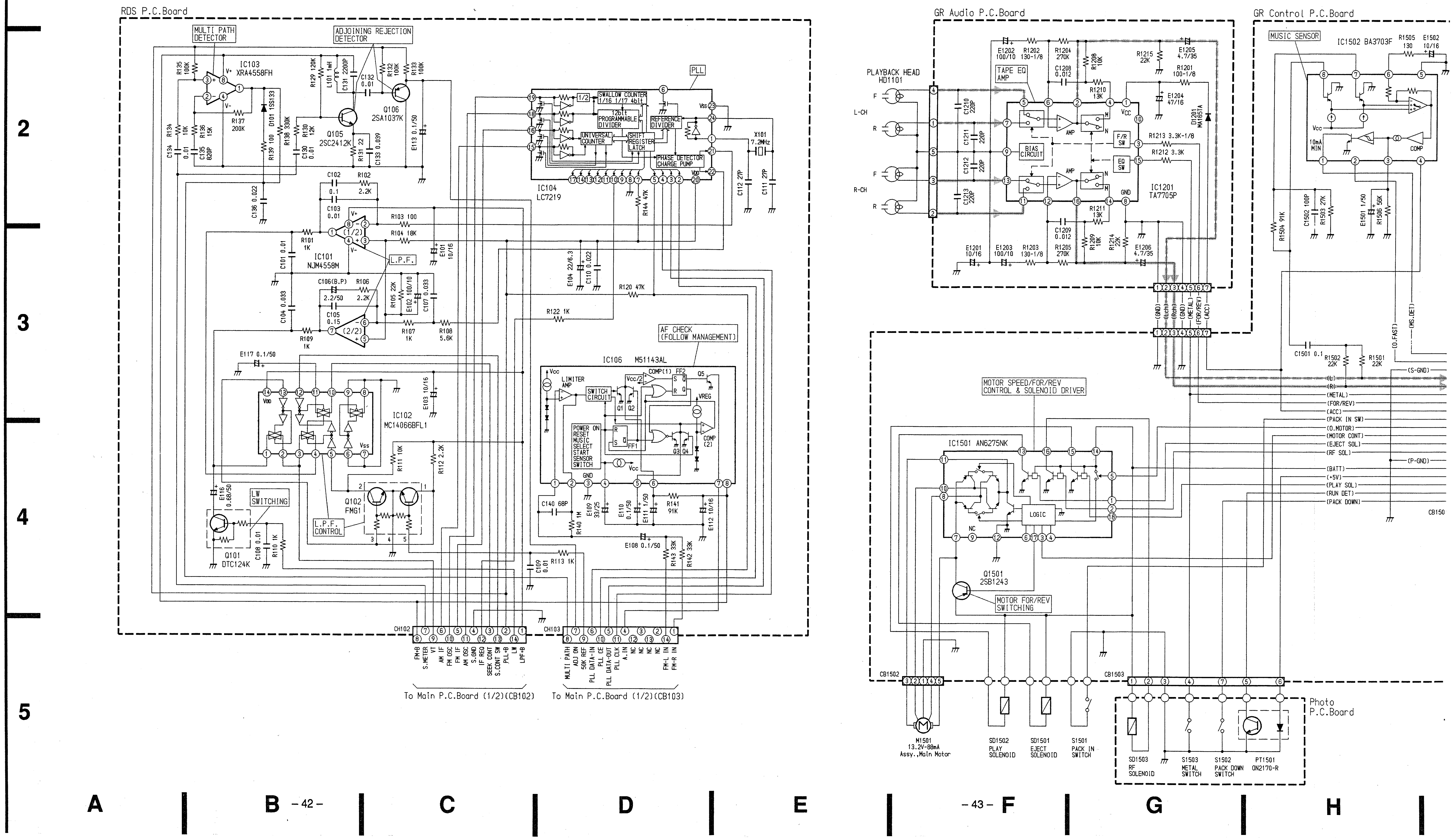
1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multi Meter
3. Measuring Reference Point : Between Ground
4. Measuring Condition : FM ..... Standard Input Receive, 1W Output

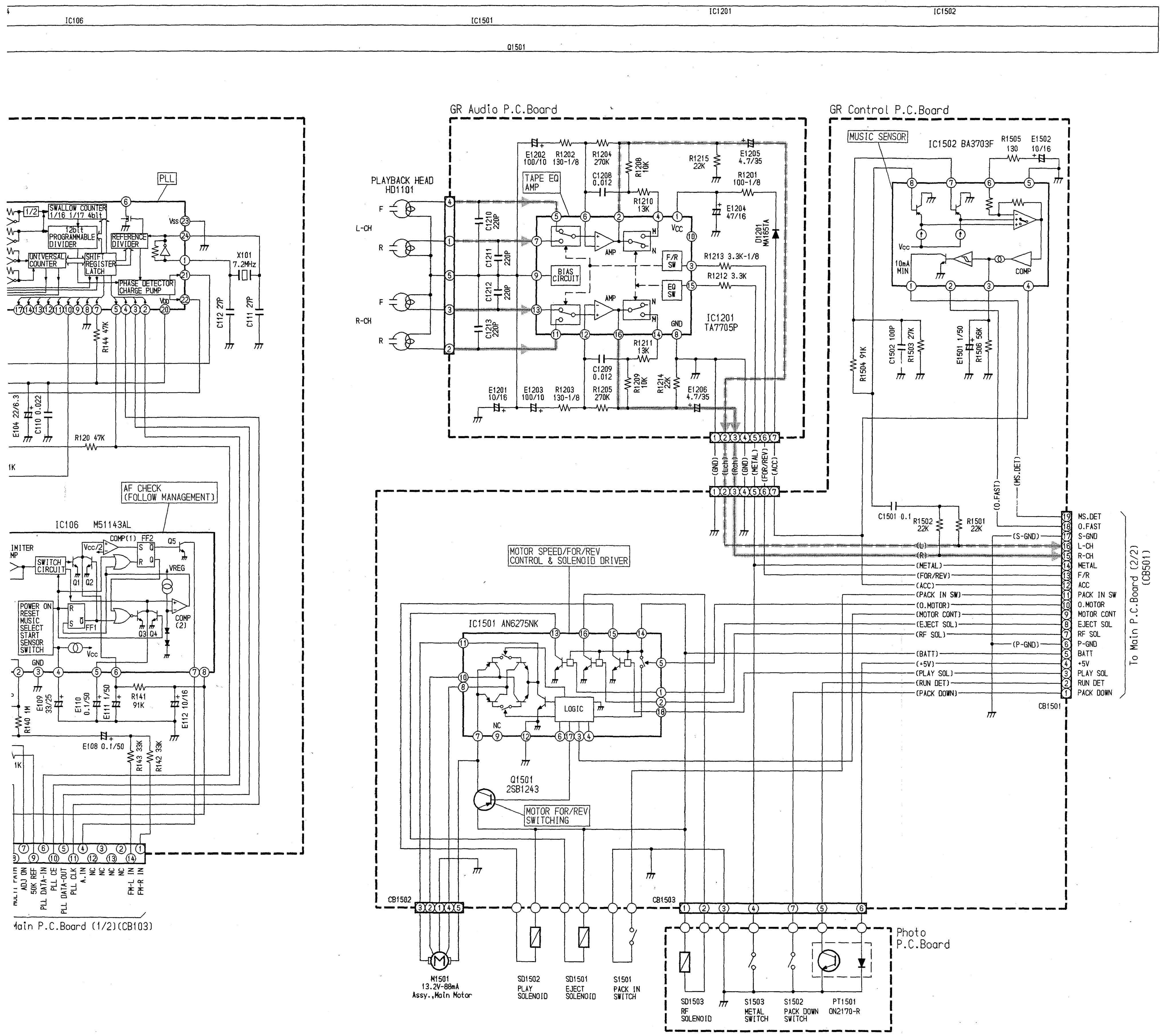
NOTES:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. $P = \frac{1}{1,000,000}$

Schematic Diagram (4/4)

IC	IC103 IC101 IC102 IC104 IC106 IC1501 IC1201 IC1502
Transistor (Q)	Q101 Q105 Q102 Q106 Q1501


1
2
3
4
5
RDS P.C.Board
MULTI PATH DETECTOR
ADJOINING REJECTION DETECTOR
IC103 XRA4558FH
Q105 2SC2412K
Q106 2SA1037K
PLL
SWALLOW COUNTER 1/16 1/17 4bit
12bit PROGRAMMABLE DIVIDER
REFERENCE DIVIDER
UNIVERSAL COUNTER
SHIFT REGISTER LATCH
PHASE DETECTOR CHARGE PUMP
IC104 LC7219
X101 7.2MHz
IC101 NJM4558M
L.P.F.
AF CHECK (FOLLOW MANAGEMENT)
IC106 M51143AL
LIMITER AMP
SWITCH CIRCUIT
POWER ON RESET MUSIC SELECT START SENSOR SWITCH
IC102 MC14066BFL1
LW SWITCHING
L.P.F. CONTROL
Q102 FMG1
Q101 DTC124K
CH102
CH103
FM+B S.METER VT AM IF FM OSC FM IF AM OSC S.GND IF REQ SEEK CONT S.CONT SW PLL+B LW LPF+B
MULTI PATH ADJ ON 50K REF PLL DATA-IN PLL CE PLL DATA-OUT PLL CLK A.IN NC NC NC NC FM-L IN FM-R IN
To Main P.C.Board (1/2)(CB102)
To Main P.C.Board (1/2)(CB103)
GR Audio P.C.Board
PLAYBACK HEAD HD1101
L-CH
R-CH
TAPE EQ AMP
BIAS CIRCUIT
F/R SW
EQ SW
IC1201 TA7705P
D1201 MA165TA
(GND) (Lch) (Rch) (GND) (METAL) (FOR/REV) (ACC)
GR Control P.C.Board
MUSIC SENSOR
IC1502 BA3703F
(O.FAST)
(MS.DET)
(S-GND)
(L) (R) (METAL) (FOR/REV) (ACC) (PACK IN SW) (O.MOTOR) (MOTOR CONT) (EJECT SOL) (RF SOL)
(P-GND)
(BATT) (+5V) (PLAY SOL) (RUN DET) (PACK DOWN)
CB150
MOTOR SPEED/FOR/REV CONTROL & SOLENOID DRIVER
IC1501 AN6275NK
LOGIC
Q1501 2SB1243
MOTOR FOR/REV SWITCHING
CB1502
CB1503
M1501 13.2V-88mA Assy.,Main Motor
SD1502 PLAY SOLENOID
SD1501 EJECT SOLENOID
S1501 PACK IN SWITCH
Photo P.C.Board
SD1503 RF SOLENOID
S1503 METAL SWITCH
S1502 PACK DOWN SWITCH
PT1501 ON2170-R
A
B
C
D
E
F
G
H


IC106
IC1501
IC1201
IC1502
Q1501
PLL
SWALLOW COUNTER 1/16 1/17 4bit
12bit PROGRAMMABLE DIVIDER
REFERENCE DIVIDER
UNIVERSAL COUNTER
SHIFT REGISTER LATCH
PHASE DETECTOR CHARGE PUMP
X101 7.2MHz
GR Audio P.C.Board
PLAYBACK HEAD HD1101
L-CH
R-CH
TAPE EQ AMP
BIAS CIRCUIT
AMP
F/R SW
EQ SW
IC1201 TA7705P
D1201 MA165TA
GR Control P.C.Board
MUSIC SENSOR
IC1502 BA3703F
COMP
10mA MIN
AF CHECK (FOLLOW MANAGEMENT)
IC106 M51143AL
SWITCH CIRCUIT
POWER ON RESET MUSIC SELECT START SENSOR SWITCH
MOTOR SPEED/FOR/REV CONTROL & SOLENOID DRIVER
IC1501 AN6275NK
LOGIC
Q1501 2SB1243
MOTOR FOR/REV SWITCHING
MS.DET
O.FAST
S-GND
L-CH
R-CH
METAL
F/R
ACC
PACK IN SW
O.MOTOR
MOTOR CONT
EJECT SOL
RF SOL
P-GND
BATT
+5V
PLAY SOL
RUN DET
PACK DOWN
To Main P.C.Board (2/2) (CB501)
CB1501
CB1502
CB1503
Main P.C.Board (1/2)(CB103)
M1501 13.2V-88mA Assy.,Main Motor
SD1502 PLAY SOLENOID
SD1501 EJECT SOLENOID
S1501 PACK IN SWITCH
Photo P.C.Board
SD1503 RF SOLENOID
S1503 METAL SWITCH
S1502 PACK DOWN SWITCH
PT1501 ON2170-R

IC101

		MODE
1	Change of Frequency	VT
2	3V / 0V	RDS ON / OFF
3	3V	
4	0V	
5	3V	
6	3V	
7	7.7V	MW
8	9V	+B

IC102

		MODE			MODE
1	Change of Frequency	VT	8	0V	
2	Change of Frequency	VT	9	0V	
3	Change of Frequency	VT	10	PS	SEEK CONT
4	Change of Frequency	VT	11	0V	
5	9V / 0V	RDS ON / OFF	12	9V / 0V	FM / SEEK OFF
6	0V		13	8.4V / 0V	RDS ON / OFF
7	0V		14	9V	+B

IC103

		MODE
1	5V	FM
2	5V	FM
3	5V	FM
4	0V	
5	NC	
6	NC	
7	NC	
8	9V	+B

IC104

		MODE			MODE
1	PS	X' TAL	13	NC	
2	PS	SEEK ON	14	NC	
3	PS	SEEK ON	15	3V	AM
4	PS	SEEK ON	16	0V	FM
5	PS	SEEK ON	17	NC	
6	NC		18	PS	AM
7	5V	FM	19	2.6V	FM
8	0V		20	5V	
9	NC		21	PS	VT
10	4.8V	FM	22	PS	VT
11	NC		23	0V	
12	NC		24	PS	X' TAL

IC106

		MODE
1	SIG.	FM
2	SIG.	FM
3	0V	
4	1.3V	FM
5	1.3V	FM
6	1.3V	FM
7	PS	A IN
8	9V	+B

IC1201

1	13.1V	9	2.9V
2	3.1V	10	—
3	4.9V	11	2.9V
4	3.1V	12	2.9V
5	2.9V	13	2.9V
6	2.9V	14	3.1V
7	2.9V	15	0.1V
8	0V	16	3.1V

IC1501

1	0V	10	13.9V
2	0V	11	8.1V
3	5.1V	12	0V
4	0V	13	14V
5	5.1V	14	14V
6	—	15	0.2V
7	13.9V	16	14V
8	8.2V	17	13.2V
9	NC	18	5.1V

IC1502

1	5.3V
2	0V
3	0V
4	13V
5	0V
6	0.6V
7	0V
8	0V

Q102

		MODE
1	0V / 8.4V	RDS ON / OFF
2	9V / 0V	RDS ON / OFF
3	0V / 8.4V	RDS ON / OFF
4	0V	
5	4.8V / 0V	RDS ON / OFF

	E	C	B	MODE
Q101	0V	0V	4.8V / 0V	LW ON / OFF
Q105	0.4V	8.7V	1V	FM
Q106	5V	0V	5V	FM
Q1501	14V	13.9V	13.2V	

<Measuring Conditions>

1. Power Supply Voltage : DC14.4V
2. Measuring Meter : Digital Multi Meter
3. Measuring Reference Point : Between Ground
4. Measuring Condition : FM ..... Standard Input Receive, 1W Output

NOTES:

1. All resistance values are in ohms. K = 1,000
2. All capacitance values are in microfarads. P = $\frac{1}{1,000,000}$

Electrical Parts List

Resistor : Carbon resistors under 1 / 4 watts are not mentioned in the parts list, please confirm them by schematic diagram.
Capacitor : μF=microfarads, pF=picofarads

Abbreviations

RES.= Resistor
C.F.= Carbon Film
M.F.= Metal Film
M.O.= Metal Oxide Film
M.P.= Metal Plate
TR.= Transistor
TRANS.= Transformer
CP.= Chip

CAP.= Capacitor
ELY.= Electrolytic
CER.= Ceramic
MYL.= Mylar
TAN.= Tantalum
POLY.= Polystyrol
PP.= Polypropylene
PLT.= Polyethylene
PF.= Polyester Film

Main P. C. Board

IC's

Symbol No.	Part No.	Description
IC003	51T93532F07	TC4S66F
IC201	51T92001F21	XRA4560F
IC202	51T92001F21	XRA4560F
IC209	51T65131W01	TEA6320T
IC210	51T25614W11	TA8221AH
IC211	51T25614W11	TA8221AH
IC302	51T65314W01	CXA1562M
IC501	51T65358W05	65358W05
IC502	51T95014F13	S-8052HNM-CR
IC503	51T55054W02	SAA6579T
IC504	51T55281W07	55281W07
IC505	51T93532F04	TC4S81F
IC506	51T55348W02	LC3564QM
IC507	51T55640W01	MC74HC373AFE
IC509	51T93332F01	NJM2903M
IC510	51T55070W04	MB88385APF
IC801	51T15268W03	L78LR05DFA

Transistors

Symbol No.	Part No.	Description
Q001	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q005	48T45594W08	CP., XN1212
or	48T73888F08	CP., FMG1
Q008	48T45594W08	CP., XN1212
or	48T73888F08	CP., FMG1
Q010	48T45594W08	CP., XN1212
or	48T73888F08	CP., FMG1
Q205	48T64222F33	CP., UN2226T
or	48T62967F33	CP., DTC343T
Q206	48T64222F33	CP., UN2226T
or	48T62967F33	CP., DTC343T
Q207	48T64222F33	CP., UN2226T
or	48T62967F33	CP., DTC343T
Q208	48T64222F33	CP., UN2226T
or	48T62967F33	CP., DTC343T
Q301	48T16335W01	CP., IMH11
Q503	48T64221F02	CP., UN2112
or	48T62966F03	CP., DTA124
Q504	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q505	48T45594W12	CP., XN1A312
or	48T73888F12	CP., FMC2
Q507	48T45594W12	CP., XN1A312
or	48T73888F12	CP., FMC2
Q508	48T63420F01	CP., 2SA1037K
Q509	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q510	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q511	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q512	48T62967F08	CP., DTC144W
Q514	48T63420F01	CP., 2SA1037K
Q515	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q519	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q801	48T64222F04	CP., UN2214
or	48T62967F06	CP., DTC114YK
Q802	48T64221F02	CP., UN2112
or	48T62966F03	CP., DTA124
Q803	48T45594W12	CP., XN1A312
or	48T73888F12	CP., FMC2
Q804	48T84366F01	2SB1243
Q805	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q806	48T84366F01	2SB1243
Q807	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q808	48T63420F01	CP., 2SA1037K
Q809	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q810	48T45594W12	CP., XN1A312
or	48T73888F12	CP., FMC2
Q811	48T84366F01	2SB1243
Q812	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q814	48T84366F01	2SB1243
Q815	48T93828F04	2SD1994A
Q816	48T45594W12	CP., XN1A312
or	48T73888F12	CP., FMC2
Q817	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q819	48T84234F03	2SB1238

Symbol No.	Part No.	Description
Q820	48T84234F03	2SB1238
Q821	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q822	48T69176F02	2SC3421
Q823	48T93828F01	2SD1994A
Q824	48T62967F09	CP., DTC114TK
Q827	48T93828F01	2SD1994A
Q828	48T52438F01	CP., 2SD601A
Q829	48T52438F01	CP., 2SD601A
Q830	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K

Diodes / Surge Protector

Symbol No.	Part No.	Description
D003	48T52446F01	CP., MA151WK
or	48T63462F01	CP., DAN202K
D004	48T52446F01	CP., MA151WK
or	48T63462F01	CP., DAN202K
D201	48T84052F11	11ES2
D202	48T55247W02	11EQS04
D203	48T55247W02	11EQS04
D204	48T84052F11	11ES2
D205	48T84052F11	11ES2
D206	48T55247W02	11EQS04
D207	48T55247W02	11EQS04
D208	48T84052F11	11ES2
D209	48T68580F03	DSA3A4
D501	48T68828F11	1SS133
D503	48T52446F01	CP., MA151WK
or	48T63462F01	CP., DAN202K
D505	48T52446F01	CP., MA151WK
or	48T63462F01	CP., DAN202K
D506	48T52446F01	CP., MA151WK
or	48T63462F01	CP., DAN202K
D508	48T68828F11	1SS133
D509	48T52446F01	CP., MA151WK
or	48T63462F01	CP., DAN202K
D516	48T52446F01	CP., MA151WK
or	48T63462F01	CP., DAN202K
D801	48T70933F11	1SS136
D802	48T55247W02	11EQS04
D803	48T70933F11	1SS136
D804	48T68828F11	1SS133
D805	48T84052F11	11ES2
D807	48T84052F11	11ES2
D808	48T64134F01	CP., DA204K
or	48T94335F01	CP., MA153
D809	48T68828F11	1SS133
D811	48T52446F01	CP., MA151WK
or	48T63462F01	CP., DAN202K

Symbol No.	Part No.	Description
ZD501	48T45012W35	Zener, MTZJ7.5A
ZD502	48T45012W35	Zener, MTZJ7.5A
ZD503	48T45012W08	Zener, MTZJ2.7B
ZD504	48T45012W29	Zener, MTZJ6.2A
ZD508	48T25766W21	Zener, HZS9A3L
ZD801	48T25766W13	Zener, HZS7B1L
ZD802	48T25766W24	Zener, HZS9C1L
ZD803	48T25766W26	Zener, HZS9C3L
ZD804	48T25766W19	Zener, HZS9A1L
ZD806	48T25766W24	Zener, HZS9C1L
ZD807	48T25766W01	Zener, HZS6A1L
DSP001	48T81048F02	Surge Protector, DSP-201M

Crystals

Symbol No.	Part No.	Description
X501	91T45118W18	4.332MHz
X502	91T45118W44	7.3728MHz
X503	91T45118W47	8MHz
X504	91T45118W12	4MHz

Coils

Symbol No.	Part No.	Description
L501	24T16403W19	CP., Inductor 2.2μH
L801	24T35072W03	FBI, BL02RN1

Switch

Symbol No.	Part No.	Description
S501	40T16096W03	Tact, SKHHLW (RESET)

Filter

Symbol No.	Part No.	Description
BPF001	91T16380W01	BPF10828K

Capacitors

Symbol No.	Part No.	Description	
C001	08S65128F29	CP.,	56pF
C002	08S65128F78	CP.,	0.022μF
C003	08S65128F35	CP.,	100pF
C004	08S53332F63	CP.,	0.056μF
C005	08S65128F71	CP.,	0.015μF
E007	23T25149W10	ELY.,	22μF / 16V
E008	23T74437F48	TAN.,	0.68μF / 35V
E009	23T25149W01	ELY.,	0.1μF / 50V
E010	23T25149W04	ELY.,	0.47μF / 50V
C019	08S65128F78	CP.,	0.022μF
C020	08S65128F69	CP.,	0.01μF

Symbol No.	Part No.	Description
C027	08S65128F78	CP., 0.022μF
C028	08S65128F78	CP., 0.022μF
C030	08S65128F78	CP., 0.022μF
C031	08S65128F69	CP., 0.01μF
C036	08S53332F67	CP., 0.1μF
E201	23T25149W05	ELY., 1μF / 50V
E202	23T25149W13	ELY., 100μF / 10V
E203	23T25149W05	ELY., 1μF / 50V
E204	23T25149W05	ELY., 1μF / 50V
E205	23T25149W15	ELY., 4.7μF / 35V
E206	23T25149W15	ELY., 4.7μF / 35V
C207	08T55390W23	TF, 0.033μF
E207	23T25149W15	ELY., 4.7μF / 35V
C208	08T55390W23	TF, 0.033μF
E208	23T25149W15	ELY., 4.7μF / 35V
C209	08T55390W14	PF., 5600pF
E209	23T25149W13	ELY., 100μF / 10V
C210	08T55390W14	PF., 5600pF
E210	23T25149W13	ELY., 100μF / 10V
C211	08S53332F67	CP., 0.1μF
E211	23T25149W12	ELY., 47μF / 16V
C212	08S53332F67	CP., 0.1μF
E212	23T25149W05	ELY., 1μF / 50V
C213	08T55390W31	TF, 0.15μF
C214	08T55390W31	TF, 0.15μF
C215	08T55390W31	TF, 0.15μF
E215	23T25149W15	ELY., 4.7μF / 35V
C216	08T55390W31	TF, 0.15μF
C217	08T55390W31	TF, 0.15μF
E217	23T25149W05	ELY., 1μF / 50V
C218	08T55390W31	TF, 0.15μF
C219	08T55390W31	TF, 0.15μF
C220	08T55390W31	TF, 0.15μF
E223	23T25149W05	ELY., 1μF / 50V
E224	23T25149W05	ELY., 1μF / 50V
E233	23T25149W09	ELY., 10μF / 16V
E234	23T25149W09	ELY., 10μF / 16V
E235	23T25149W09	ELY., 10μF / 16V
E236	23T25149W09	ELY., 10μF / 16V
E237	23T25149W05	ELY., 1μF / 50V
E238	23T25149W05	ELY., 1μF / 50V
E239	23T25149W05	ELY., 1μF / 50V
E240	23T25149W05	ELY., 1μF / 50V
E241	23T55405W01	ELY., 10μF / 16V
E242	23T55405W01	ELY., 10μF / 16V
E243	23T55405W01	ELY., 10μF / 16V
E244	23T55405W01	ELY., 10μF / 16V
E245	23T55378W01	ELY., 220μF / 10V
E246	23T55378W01	ELY., 220μF / 10V
E301	23T25149W15	ELY., 4.7μF / 35V
E302	23T25149W15	ELY., 4.7μF / 35V
C303	08T55390W29	TF, 0.1μF

Symbol No.	Part No.	Description
C304	08T55390W29	TF, 0.1μF
E308	23T25149W05	ELY., 1μF / 50V
E309	23T25149W09	ELY., 10μF / 16V
C310	08S65128F35	CP., 100pF
C311	08S65128F35	CP., 100pF
E312	23S16086W01	ELY., 220μF / 10V
C316	08T55390W27	TF, 0.068μF
C317	08T55390W27	TF, 0.068μF
C501	08S65128F35	CP., 100pF
E501	23T25149W13	ELY., 100μF / 10V
C502	08S65128F35	CP., 100pF
E502	23T25149W13	ELY., 100μF / 10V
C503	08S65128F78	CP., 0.022μF
E503	23T25149W13	ELY., 100μF / 10V
C504	08S65128F69	CP., 0.01μF
C505	08S82122F21	CP., 22pF
E505	23T25149W13	ELY., 100μF / 10V
C506	08S82122F21	CP., 22pF
C507	08S65128F78	CP., 0.022μF
E507	23T25149W13	ELY., 100μF / 10V
C508	08S65128F69	CP., 0.01μF
C510	08S65128F35	CP., 100pF
E510	23T25149W04	ELY., 0.47μF / 50V
C511	08S65128F35	CP., 100pF
E511	23T25149W03	ELY., 0.33μF / 50V
C512	08S65128F35	CP., 100pF
E512	23T25149W06	ELY., 2.2μF / 50V
C513	08S65128F78	CP., 0.022μF
E513	23T25149W09	ELY., 10μF / 16V
E514	23T25149W09	ELY., 10μF / 16V
C517	08S65128F78	CP., 0.022μF
C518	08S65128F69	CP., 0.01μF
C519	08S82122F17	CP., 15pF
C520	08S82122F17	CP., 15pF
E520	23T25149W09	ELY., 10μF / 16V
C522	08S65128F35	CP., 100pF
C523	08S65128F35	CP., 100pF
C525	08S65128F35	CP., 100pF
C526	08S65128F35	CP., 100pF
C528	08S65128F35	CP., 100pF
C529	08S65128F35	CP., 100pF
C530	08S65128F35	CP., 100pF
C531	08S65128F35	CP., 100pF
C533	08S65128F69	CP., 0.01μF
C534	08S82122F23	CP., 27pF
C535	08S82122F23	CP., 27pF
C536	08S65128F35	CP., 100pF
C537	08S65128F35	CP., 100pF
C538	08S65128F35	CP., 100pF
C539	08S65128F35	CP., 100pF
C540	08S65128F69	CP., 0.01μF
C541	08S65128F78	CP., 0.022μF

Symbol No.	Part No.	Description	
C542	08S65128F78	CP.,	0.022µF
C543	08S65128F78	CP.,	0.022µF
C544	08S65128F35	CP.,	100pF
C545	08S65128F35	CP.,	100pF
C546	08S65128F78	CP.,	0.022µF
C550	08S65128F73	CP.,	0.033µF
C551	08S65128F57	CP.,	1000pF
C552	08S65128F35	CP.,	100pF
C553	08S65128F69	CP.,	0.01µF
C554	08S65128F35	CP.,	100pF
C555	08S65128F69	CP.,	0.01µF
C556	08S65128F69	CP.,	0.01µF
C557	08S65128F69	CP.,	0.01µF
C558	08S65128F69	CP.,	0.01µF
C560	08S65128F69	CP.,	0.01µF
C561	08S65128F69	CP.,	0.01µF
C562	08S65128F35	CP.,	100pF
C563	08S65128F35	CP.,	100pF
C564	08S65128F35	CP.,	100pF
C565	08S65128F69	CP.,	0.01µF
C566	08S65128F47	CP.,	330pF
C567	08S65128F53	CP.,	560pF
C568	08S82122F23	CP.,	27pF
C569	08S82122F23	CP.,	27pF
C572	08S65128F69	CP.,	0.01µF
C574	08S53332F67	CP.,	0.1µF
C575	08S65128F35	CP.,	100pF
C576	08S65128F35	CP.,	100pF
C577	08S65128F35	CP.,	100pF
C579	08S65128F78	CP.,	0.022µF
C801	08S65128F69	CP.,	0.01µF
E801	23T25149W01	ELY.,	0.1µF / 50V
C802	08S65128F74	CP.,	0.047µF
E802	23T25149W09	ELY.,	10µF / 16V
C803	08S65128F69	CP.,	0.01µF
E803	23T00149L27	ELY.,	330µF / 16V
C804	08S65128F69	CP.,	0.01µF
E804	23T00149L28	ELY.,	470µF / 16V
E805	23T00149L14	ELY.,	220µF / 10V
C806	08S65128F78	CP.,	0.022µF
E806	23T00149L60	ELY.,	100µF / 50V
C807	08S65128F78	CP.,	0.022µF
E807	23T25149W09	ELY.,	10µF / 16V
C808	08S65128F69	CP.,	0.01µF
C809	08S65128F69	CP.,	0.01µF
C810	08S65128F69	CP.,	0.01µF
C811	08S65128F69	CP.,	0.01µF
E811	23T55378W01	ELY.,	220µF / 10V
C812	08S65128F69	CP.,	0.01µF
E812	23T25149W09	ELY.,	10µF / 16V
E820	23T35505W12	ELY.,	2200µF / 16V
E821	23T35505W12	ELY.,	2200µF / 16V

Symbol No.	Part No.	Description
Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)		
R009	06S64995F53	1K ohm
R023	06S64995F77	10K ohm
R025	06S64995F77	10K ohm
R026	06S64995F77	10K ohm
R027	06S64995F77	10K ohm
R028	06S64995F77	10K ohm
R030	06S64995F53	1K ohm
R032	06S64995F93	47K ohm
R033	06S64995F93	47K ohm
R036	06S64995F77	10K ohm
R037	06S64995F77	10K ohm
R247	06S64995F37	220 ohm
R248	06S64995F37	220 ohm
R249	06S64995F37	220 ohm
R250	06S64995F37	220 ohm
R254	06S64995F67	3.9K ohm
R255	06S64995F67	3.9K ohm
R256	06S64995F67	3.9K ohm
R257	06S64995F67	3.9K ohm
R258	06S64995F69	4.7K ohm
R259	06S64995F69	4.7K ohm
R260	06S64995F69	4.7K ohm
R261	06S64995F69	4.7K ohm
R262	06S64995F67	3.9K ohm
R263	06S64995F67	3.9K ohm
R264	06S64995F67	3.9K ohm
R265	06S64995F67	3.9K ohm
R266	06S64995F57	1.5K ohm
R267	06S64995F57	1.5K ohm
R268	06S64995F57	1.5K ohm
R269	06S64995F57	1.5K ohm
R270	06S53331F40	2.2 ohm 1/8W
R271	06S53331F40	2.2 ohm 1/8W
R272	06S53331F40	2.2 ohm 1/8W
R273	06S53331F40	2.2 ohm 1/8W
R274	06S53331F40	2.2 ohm 1/8W
R275	06S53331F40	2.2 ohm 1/8W
R276	06S53331F40	2.2 ohm 1/8W
R277	06S53331F40	2.2 ohm 1/8W
R282	06S64995F77	10K ohm
R283	06S64995F77	10K ohm
R291	06S64995F87	27K ohm
R292	06S64995F87	27K ohm
R303	06S64996F30	2.2M ohm
R304	06S64996F30	2.2M ohm
R311	06S64995F84	20K ohm
R312	06S64995F75	8.2K ohm
R314	06S64995F37	220 ohm
R315	06S64995F79	12K ohm
R321	06S64995F61	2.2K ohm

Symbol No.	Part No.	Description
R322	06S64995F61	2.2K ohm
R323	06S64995F60	2K ohm
R324	06S64995F60	2K ohm
R500	06S64995F93	47K ohm
R501	06S64995F41	330 ohm
R502	06S64995F89	33K ohm
R503	06S64995F53	1K ohm
R504	06S64995F93	47K ohm
R505	06S64995F93	47K ohm
R506	06S64995F93	47K ohm
R507	06S64995F69	4.7K ohm
R508	06S64995F85	22K ohm
R509	06S64995F93	47K ohm
R511	06S64995F61	2.2K ohm
R512	06S64995F77	10K ohm
R514	06S64995F93	47K ohm
R515	06S64995F53	1K ohm
R516	06S64995F85	22K ohm
R517	06S64995F93	47K ohm
R518	06S64996F10	220K ohm
R519	06S64995F93	47K ohm
R520	06S64995F93	47K ohm
R521	06S64995F93	47K ohm
R522	06S64995F93	47K ohm
R524	06S64996F02	100K ohm
R527	06S64995F93	47K ohm
R528	06S64995F93	47K ohm
R530	06S64995F93	47K ohm
R531	06S64995F85	22K ohm
R532	06S64995F85	22K ohm
R533	06S64995F93	47K ohm
R534	06S64995F77	10K ohm
R535	06S64995F77	10K ohm
R536	06S64995F61	2.2K ohm
R537	06S64995F53	1K ohm
R538	06S64995F77	10K ohm
R539	06S64995F53	1K ohm
R540	06S64995F53	1K ohm
R541	06S64995F53	1K ohm
R542	06S64995F93	47K ohm
R543	06S64995F53	1K ohm
R545	06S64995F69	4.7K ohm
R546	06S64996F38	10M ohm
R547	06S64996F26	1M ohm
R548	06S64995F93	47K ohm
R549	06S64995F93	47K ohm
R550	06S64995F69	4.7K ohm
R551	06S64995F77	10K ohm
R555	06S64995F05	10 ohm
R557	06S64995F93	47K ohm
R560	06S64995F93	47K ohm
R561	06S64995F77	10K ohm
R562	06S64995F53	1K ohm
R563	06S64995F93	47K ohm
R565	06S64995F53	1K ohm
R567	06S64995F93	47K ohm
R568	06S64995F93	47K ohm
R569	06S70072F19	39 ohm 1/4W
R570	06S64995F53	1K ohm
R571	06S64995F53	1K ohm
R572	06S64995F53	1K ohm
R573	06S64995F53	1K ohm
R574	06S64995F53	1K ohm
R575	06S64995F53	1K ohm
R576	06S64995F69	4.7K ohm
R577	06S70072F19	39 ohm 1/4W
R578	06S70072F19	39 ohm 1/4W
R579	06S70072F19	39 ohm 1/4W
R580	06S64995F61	2.2K ohm
R581	06S64995F57	1.5K ohm
R582	06S64995F57	1.5K ohm
R583	06S64995F61	2.2K ohm
R589	06S64995F61	2.2K ohm
R590	06S64995F93	47K ohm
R591	06S64995F93	47K ohm
R592	06S64995F93	47K ohm
R593	06S64995F77	10K ohm
R594	06S64995F77	10K ohm
R595	06S64995F93	47K ohm
R596	06S64995F93	47K ohm
R601	06S64995F93	47K ohm
R602	06S64995F93	47K ohm
R603	06S64995F93	47K ohm
R604	06S64995F93	47K ohm
R605	06S64995F93	47K ohm
R606	06S64995F53	1K ohm
R607	06S64995F53	1K ohm
R802	06S53330F69	4.7K ohm 1/8W
R803	06S64995F93	47K ohm
R805	06S64995F77	10K ohm
R806	06S70072F55	1.2K ohm 1/4W
R807	06S53330F77	10K ohm 1/8W
R808	06S64995F77	10K ohm
R809	06S70072F55	1.2K ohm 1/4W
R811	06S70072F03	6.8 ohm 1/4W
R812	06S70072F03	6.8 ohm 1/4W
R813	06S70072F03	6.8 ohm 1/4W
R814	06S64995F77	10K ohm
R815	06S64995F77	10K ohm
R816	06S70072F61	2.2K ohm 1/4W
R817	06S64995F77	10K ohm
R818	06S64995F77	10K ohm
R819	06S53330F77	10K ohm 1/8W
R820	06S70072F53	1K ohm 1/4W

Symbol No.	Part No.	Description
R821	06S70072F53	1K ohm 1/4W
R822	06S70072F61	2.2K ohm 1/4W
R823	06S70072F61	2.2K ohm 1/4W
R824	06S53330F77	10K ohm 1/8W
R825	06S70072F45	470 ohm 1/4W
R826	06S70072F53	1K ohm 1/4W
R829	06S64995F55	1.2K ohm
R831	06S64995F53	1K ohm
R833	06S64995F53	1K ohm
R834	06S64995F65	3.3K ohm
R835	06S70072F61	2.2K ohm 1/4W
R836	06S64995F77	10K ohm
R837	06S70072F41	330 ohm 1/4W
R838	06S53330F73	6.8K ohm 1/8W
R840	06S70072F39	270 ohm 1/4W
R841	06S70072F39	270 ohm 1/4W
R842	06S64995F61	2.2K ohm
R847	06S53330F69	4.7K ohm 1/8W
R848	06S64995F77	10K ohm
VR301	18T15356W13	Variable, 10K ohm
VR302	18T15356W13	Variable, 10K ohm

Front P. C. Board

IC's		
IC401	51T45552W43	45552W43
IC402	51T55492W01	LC75850W
IC403	51T55246W02	RPM-638CBL

Transistors		
Q402	48T45594W12	CP., XN1A312
or	48T73888F12	CP., FMC2
Q404	48T63788F01	CP., 2SD1328
Q406	48T63788F01	CP., 2SD1328
Q408	48T63788F01	CP., 2SD1328
Q410	48T94853F08	CP., DTD143TK
Q411	48T94853F08	CP., DTD143TK
Q412	48T63788F01	CP., 2SD1328

Diodes		
D401	48T81063F01	CP., MA159
D402	48T81063F01	CP., MA159
ZD401	48T62934F24	Zener, CP. RD6.2MB1

Symbol No.	Part No.	Description
Switches		
S401	40T35140W22	CP., Tact SKQDAB (PWR/ INTLZ)
S402	40T35140W22	CP., Tact SKQDAB (TITLE)
S403	40T35140W22	CP., Tact SKQDAB (R.D.S EON)
S404	40T35140W22	CP., Tact SKQDAB (MODE / LOUD)
S405	40T55571W01	CP., Tact SKQAXX (DOWN)
S407	40T55571W01	CP., Tact SKQAXX (UP)
S409	40T35140W22	CP., Tact SKQDAB (TUNER / BAND / VCR)
S410	40T35140W22	CP., Tact SKQDAB (TAPE · PLAY / PAUSE)
S411	40T35140W22	CP., Tact SKQDAB (DISC · PLAY / PAUSE)
S412	40T35140W22	CP., Tact SKQDAB (A · PROC)
S413	40T35140W22	CP., Tact SKQDAB (EFFECT)
S414	40T35140W22	CP., Tact SKQDAB (DEFEAT)
S415	40T35140W22	CP., Tact SKQDAB (1 / DOLBY B · C)
S416	40T35140W22	CP., Tact SKQDAB (2 / P.S. DN)
S417	40T35140W22	CP., Tact SKQDAB (3 / P.S. UP)
S418	40T35140W22	CP., Tact SKQDAB (4 / B. SKIP)
S419	40T35140W22	CP., Tact SKQDAB (5)
S420	40T35140W22	CP., Tact SKQDAB (6 / PROG)
S421	40T35140W22	CP., Tact SKQDAB (SCAN / T. INFO)
S422	40T35140W22	CP., Tact SKQDAB (M / P)
S423	40T35140W22	CP., Tact SKQDAB (PTY)
S424	40T35140W22	CP., Tact SKQDAB (M.S. · CD · DN / REW)
S425	40T35140W22	CP., Tact SKQDAB (M.S. · CD · UP / FF)
S426	40T35140W22	CP., Tact SKQDAB (TUN / A. ME / M.I.X.)
S427	40T35140W22	CP., Tact SKQDAB (MONO / REPEAT)
S428	40T35140W22	CP., Tact SKQDAB (EJECT)
Lamps		
PL401	65T55635W03	CP., 6V-70mA
PL402	65T55635W03	CP., 6V-70mA
PL403	65T55635W02	CP., 6V-70mA
PL404	65T55635W02	CP., 6V-70mA
PL405	65T55635W03	CP., 6V-70mA
PL406	65T55635W03	CP., 6V-70mA
PL407	65T55635W02	CP., 6V-70mA
PL408	65T55635W02	CP., 6V-70mA
PL409	65T55635W03	CP., 6V-70mA
PL410	65T55635W03	CP., 6V-70mA
PL411	65T55635W02	CP., 6V-70mA

Symbol No.	Part No.	Description
PL412	65T55635W02	CP., 6V-70mA
PL413	65T55635W03	CP., 6V-70mA
PL414	65T55635W03	CP., 6V-70mA
PL415	65T95083F05	6.7V-85mA
PL416	65T95083F08	6.7V-85mA
PL417	65T55635W02	CP., 6V-70mA
Coil		
L401	24T16403W19	CP., Inductor 2.2µH
Crystal		
X401	91T45433W49	CP., 8.3886MHz
Capacitors		
C401	08S82122F17	CP., 15pF
E401	23T25191W42	CP. ELY., 22µF / 6.3V
C402	08S82122F17	CP., 15pF
E402	23T25191W42	CP. ELY., 22µF / 6.3V
C403	08S82122F53	CP., 470pF
C406	08T15399W03	CP., 0.047µF
C407	08T15399W03	CP., 0.047µF
Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)		
R401	06S70072F77	10K ohm 1/4W
R402	06S64995F45	470 ohm
R403	06S64995F53	1K ohm
R404	06S64995F53	1K ohm
R405	06S64995F53	1K ohm
R406	06S64995F53	1K ohm
R408	06S64995F45	470 ohm
R409	06S70072F21	47 ohm 1/4W
R410	06S70072F21	47 ohm 1/4W
R411	06S70072F21	47 ohm 1/4W
R412	06S70072F21	47 ohm 1/4W
R413	06S70072F21	47 ohm 1/4W
R414	06S70072F21	47 ohm 1/4W
R415	06S70072F21	47 ohm 1/4W
R416	06S70072F21	47 ohm 1/4W
R417	06S70072F19	39 ohm 1/4W
R418	06S70072F16	30 ohm 1/4W

Symbol No.	Part No.	Description
R419	06S70072F43	390 ohm 1/4W
R420	06S70072F43	390 ohm 1/4W
R421	06S70072F43	390 ohm 1/4W
R422	06S70072F53	1K ohm 1/4W
R423	06S53330F93	47K ohm 1/8W
R431	06S64995F69	4.7K ohm
R432	06S64995F69	4.7K ohm
R433	06S64995F69	4.7K ohm
R434	06S64995F69	4.7K ohm
R435	06S64995F93	47K ohm
R436	06S64995F93	47K ohm
R437	06S64995F93	47K ohm
R438	06S64995F93	47K ohm
R439	06S64995F93	47K ohm
R440	06S64995F93	47K ohm
R441	06S64995F93	47K ohm
R442	06S64996F04	120K ohm
R443	06S64995F81	15K ohm
R444	06S64995F71	5.6K ohm
R445	06S64995F61	2.2K ohm
R446	06S64995F61	2.2K ohm
R447	06S64995F61	2.2K ohm
R448	06S64995F61	2.2K ohm
Pre Out P. C. Board		
IC		
IC203	51T92001F21	XRA4560F
Transistors		
Q211	48T64222F33	CP., UN2226T
or	48T62967F33	CP., DTC343T
Q212	48T64222F33	CP., UN2226T
or	48T62967F33	CP., DTC343T
Q213	48T64222F33	CP., UN2226T
or	48T62967F33	CP., DTC343T
Q214	48T64222F33	CP., UN2226T
or	48T62967F33	CP., DTC343T
Q215	48T64222F33	CP., UN2226T
or	48T62967F33	CP., DTC343T
Q216	48T64222F33	CP., UN2226T
or	48T62967F33	CP., DTC343T

Symbol No.	Part No.	Description
Switch		
S201	40T94668F06	SSSF142 (Ai-NET DIN IN / OUT SELECT)
Buzzer		
BZ501	50T25148W02	CB13PA-225
Capacitors		
E251	23T25149W09	ELY., 10µF / 16V
E252	23T25149W09	ELY., 10µF / 16V
E253	23T25149W09	ELY., 10µF / 16V
E254	23T25149W09	ELY., 10µF / 16V
E255	23T25149W09	ELY., 10µF / 16V
E256	23T25149W09	ELY., 10µF / 16V
E257	23T25149W09	ELY., 10µF / 16V
E258	23T25149W09	ELY., 10µF / 16V
E259	23T25149W09	ELY., 10µF / 16V
E260	23T25149W09	ELY., 10µF / 16V
E261	23T25149W05	ELY., 1µF / 50V
Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)		
R215	06T15443W85	22K ohm
R216	06T15443W85	22K ohm
R217	06T15443W85	22K ohm
R218	06T15443W85	22K ohm
R219	06T15443W81	15K ohm
R220	06T15443W81	15K ohm
R221	06T15443W81	15K ohm
R222	06T15443W81	15K ohm
R223	06S64995F29	100 ohm
R224	06S64995F29	100 ohm
R225	06S64995F89	33K ohm
R226	06S64995F89	33K ohm
R227	06S64995F37	220 ohm
R228	06S64995F37	220 ohm
R229	06S64995F29	100 ohm
R230	06S64995F29	100 ohm
R231	06S64995F89	33K ohm
R232	06S64995F89	33K ohm
R233	06S64995F37	220 ohm
R234	06S64995F37	220 ohm
R235	06S64995F29	100 ohm
R236	06S64995F29	100 ohm
R237	06S64995F89	33K ohm

Symbol No.	Part No.	Description
R238	06S64995F89	33K ohm
R239	06S64995F37	220 ohm
R240	06S64995F37	220 ohm
RDS P. C. Board		
IC's		
IC101	51T93336F01	NJM4558M
IC102	51T40941U03	MC14066BFL1
IC103	51T65379F22	XRA4558FH
IC104	51T35504W02	LC7219
IC106	51T67915F01	M51143AL
Transistors		
Q101	48T64222F02	CP., UN2212
or	48T62967F03	CP., DTC124K
Q102	48T45594W08	CP., XN1212
or	48T73888F08	CP., FMG1
Q105	48T63417F01	CP., 2SC2412K
Q106	48T63420F01	CP., 2SA1037K
Diode		
D101	48T68828F11	1SS133
Crystal		
X101	91T45118W43	7.2MHz
Coil		
L101	24T25798W13	Inductor, 1mH
Capacitors		
C101	08S65128F69	CP., 0.01µF
E101	23T25149W09	ELY., 10µF / 16V
C102	08T55390W29	TF, 0.1µF
E102	23T25149W13	ELY., 100µF / 10V
C103	08S65128F69	CP., 0.01µF

Symbol No.	Part No.	Description
E103	23T25149W09	ELY., 10µF / 16V
C104	08T15399W02	CP., 0.033µF
E104	23T25149W16	ELY., 22µF / 6.3V
C105	08T55390W31	TF, 0.15µF
C106	23T82372F19	ELY., (B.P) 2.2µF / 50V
C107	08T15399W02	CP., 0.033µF
C108	08S65128F69	CP., 0.01µF
E108	23T25149W01	ELY., 0.1µF / 50V
C109	08S65128F69	CP., 0.01µF
E109	23T25149W11	ELY., 33µF / 25V
C110	08S65128F78	CP., 0.022µF
E110	23T25149W01	ELY., 0.1µF / 50V
C111	08S82122F23	CP., 27pF
E111	23T25149W05	ELY., 1µF / 50V
C112	08S82122F23	CP., 27pF
E112	23T25149W09	ELY., 10µF / 16V
E113	23T25149W01	ELY., 0.1µF / 50V
E116	23T25149W14	ELY., 0.68µF / 50V
E117	23T25149W01	ELY., 0.1µF / 50V
C130	08S65128F69	CP., 0.01µF
C131	08S65128F61	CP., 2200pF
C132	08S65128F69	CP., 0.01µF
C133	08S65128F81	CP., 0.039µF
C134	08S65128F69	CP., 0.01µF
C135	08S65128F56	CP., 820pF
C136	08S65128F78	CP., 0.022µF
C140	08S65128F31	CP., 68pF

Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)

R101	06S64995F53	1K ohm
R102	06S64995F61	2.2K ohm
R103	06S64995F29	100 ohm
R104	06S64995F83	18K ohm
R105	06S64995F85	22K ohm
R106	06S64995F61	2.2K ohm
R107	06S64995F53	1K ohm
R108	06S64995F71	5.6K ohm
R109	06S64995F53	1K ohm
R110	06S64995F53	1K ohm
R111	06S64995F77	10K ohm
R112	06S64995F61	2.2K ohm
R113	06S64995F53	1K ohm
R120	06S64995F93	47K ohm
R122	06S64995F53	1K ohm
R129	06S64996F04	120K ohm
R130	06S64995F79	12K ohm
R131	06S64995F13	22 ohm
R132	06S64996F02	100K ohm
R133	06S64996F02	100K ohm

Symbol No.	Part No.	Description
R134	06S64995F77	10K ohm
R135	06S64996F02	100K ohm
R136	06S64995F81	15K ohm
R137	06S64996F09	200K ohm
R138	06S64996F14	330K ohm
R139	06S64995F29	100 ohm
R140	06S64996F26	1M ohm
R141	06S64996F01	91K ohm
R142	06S64995F89	33K ohm
R143	06S64995F89	33K ohm
R144	06S64995F93	47K ohm

GR Control P. C. Board

IC's / Transistor

IC1501	51T25621W02	IC, AN6275NK
IC1502	51T75010W01	IC, BA3703F
Q1501	48T84366F05	2SB1243

Capacitors

C1501	08T35374W01	CP., 0.1µF
E1501	23S61523F29	ELY., 1µF / 50V
C1502	08S65128F35	CP., 100pF
E1502	23S61523F12	ELY., 10µF / 16V

Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)

R1501	06S64995F85	22K ohm
R1502	06S64995F85	22K ohm
R1503	06S64995F87	27K ohm
R1504	06S64996F01	91K ohm
R1505	06S64995F32	130 ohm
R1506	06S64995F95	56K ohm

GR Audio P. C. Board

IC / Diode

IC1201	51T15146W01	IC, TA7705P
D1201	48T44813F01	MA165TA

Symbol No.	Part No.	Description

Capacitors

E1201	23T25149W09	ELY., 10µF / 16V
E1202	23T25149W13	ELY., 100µF / 10V
E1203	23T25149W13	ELY., 100µF / 10V
E1204	23T25149W12	ELY., 47µF / 16V
E1205	23T25149W15	ELY., 4.7µF / 35V
E1206	23T25149W15	ELY., 4.7µF / 35V
C1208	08T35122W02	TF, 0.012µF
C1209	08T35122W02	TF, 0.012µF
C1210	08T35389W05	PF., 220pF
C1211	08T35389W05	PF., 220pF
C1212	08T35389W05	PF., 220pF
C1213	08T35389W05	PF., 220pF

Resistors (All resistors are chip 1/10W±5% unless otherwise noted.)

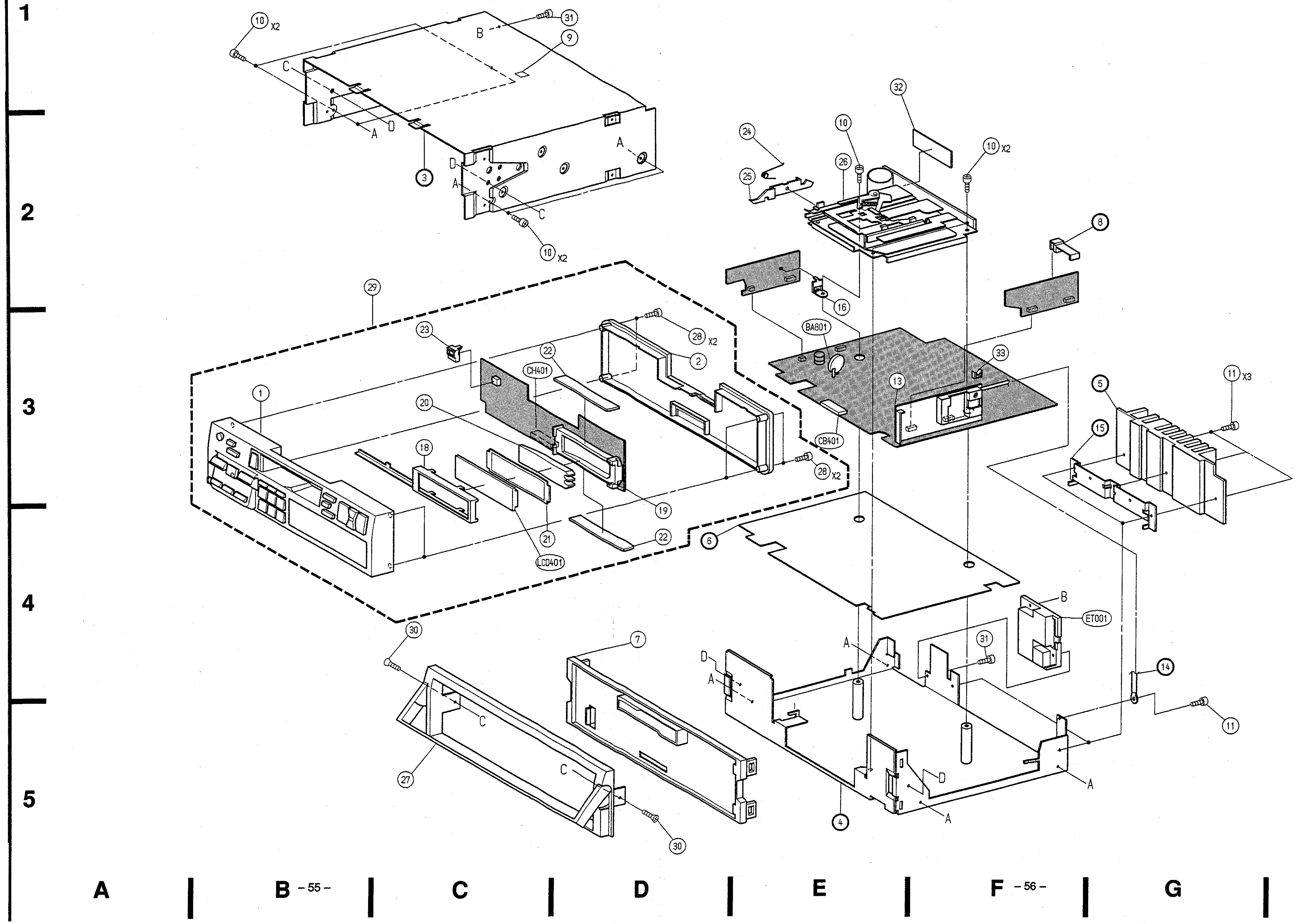
R1201	06S53330F29	100 ohm 1/8W
R1202	06S53330F32	130 ohm 1/8W
R1203	06S53330F32	130 ohm 1/8W
R1204	06S64996F12	270K ohm
R1205	06S64996F12	270K ohm
R1208	06S64995F77	10K ohm
R1209	06S64995F77	10K ohm
R1210	06S64995F80	13K ohm
R1211	06S64995F80	13K ohm
R1212	06S64995F65	3.3K ohm
R1213	06S53330F65	3.3K ohm 1/8W
R1214	06S53330F85	22K ohm 1/8W
R1215	06S64995F85	22K ohm

Miscellaneous

BA801	60T25650W02	Battery, Lit. CR2032-1VC1
CB401	09T55607W13	17Pin Connector
CH401	09T55608W17	17Pin Connector
ET001	01T65413W01	Assy., QRB Socekt
LCD401	65T65361W02	LCD Display
HD1101	88T35406W03	Head
M1501	01V41100W72	Assy., Main Motor (13.2V-88mA)
PT1501	51T15144W01	Sensor, Photo ON2170-R
S1501	40T15222W01	Switch, Detector (PACK IN)
S1502	40T15382W01	Switch, Detector (PACK DOWN)
S1503	40T15382W01	Switch, Detector (METAL)
SD1501	01T10369W02	Assy., Eject Solenoid
SD1502	01T15249W01	Assy., Play Solenoid
SD1503	01T10371W01	Assy., RF Solenoid

Symbol No.	Part No.	Description

Exploded View (Cabinet)


1
2
3
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10 X2
31
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10 X2
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10 X2
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8
16
29
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28 X2
2
22
CH401
BA801
33
13
11 X3
5
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20
18
19
CB401
28 X2
21
22
LCD401
6
B
ET001
30
7
31
A
D
A
14
11
27
C
C
D
A
A
4
30

Cabinet Assembly Parts List

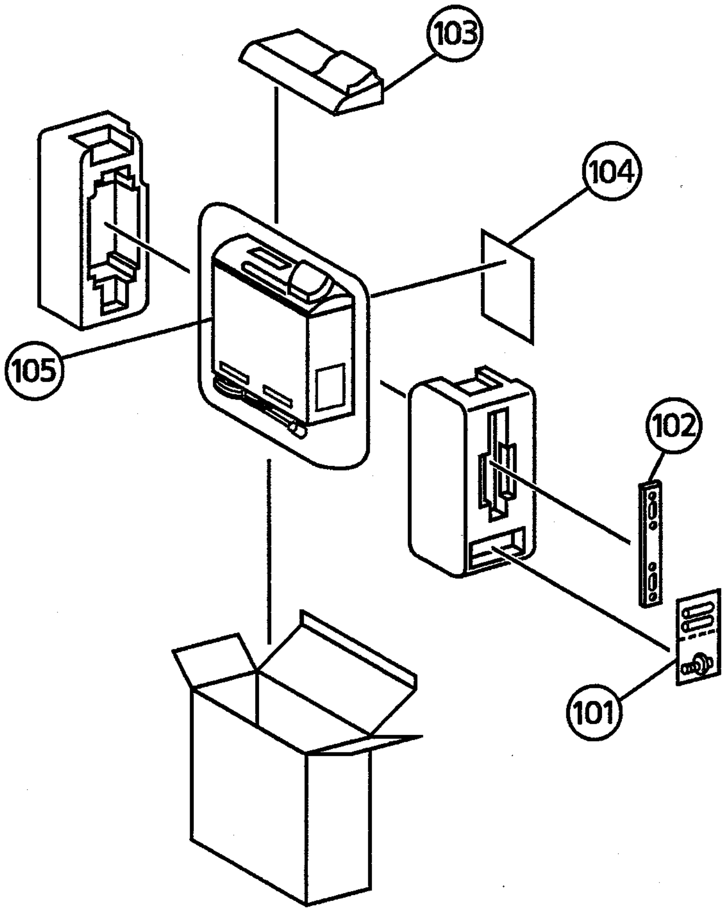
Note : No parts number on parts list are not supplied.

Symbol No.	Index	Part No.	Description
1	3-B	13C60586W02	Assy., Nosepiece
2	3-D	13D60603W01	Nose, Bottom
7	4-D	13C60604W01	Assy., Front Escutcheon
9	1-D	75S50638W53	Cushion, Rubber
10		03S38013W24	Screw, Pan (M2.6×6)
11		03S44205G76	Screw, Pan (M2.6×8)
13	3-E	77B60578W01	FM / MW /LW Tuner, MB4R3010 (FE001)
16	2-E	07A61128W01	Bracket, P.C.Board
18	3-C	15B60615W01	Cover, LCD
19	4-D	15B60616W01	Case, LCD
20	3-C	61A50305W01	Lens, LCD
21	4-C	26A60618W01	Reflector, Sheet
22		75T95057F06	Rubber, Connector
23	3-C	43A50943W01	Spacer, Remote
24	2-E	41A20424W01	Spring, Door
25	2-E	45C61079W01	Lever, Door
26	2-E	81D51064W01	Cassette Deck, GR75H13A
27	5-C	07C61067W01	Assy., Bracket Handle
28		03S68555F39	Screw, Pan (M1.7×10)
29	2-B	01V63700W16	Assy., Nose Unit
30		03S38013W31	Screw, Countersink (M2.6×6)
31		03S52360F78	Screw, Pan (M2.6×8)
32	1-E	14S58462F54	Insulator, Cover
33	3-F	42T93247F05	Clamp, UAMS-03-0

Packing Assembly Parts List

Symbol No.	Part No.	Description
101-1	02B47353F01	Nut, Hex. (M5)
101-2	03S63857F62	Screw, Tpg. (M4×15)
101-3	03B40155F12	Bolt, Hex. (M5×14)
101-4	03B40155F11	Bolt, Hex. (M5×8)
101-5	07A30081W01	Bracket, QRB (A)
101-6	07A30082W01	Bracket, QRB (B)
101-7	03S44205G07	Screw, Pan (M2.6×5)
102	07B64552F01	Bracket, Strap Receiver
103	15D60773W01	Carrying, Case
104	68P60141W82	Owner's Manual
105-1	15D61083W01	Case, Mother
105-2	03A28015W01	Screw, Special (M2.6×6.7)
105-3	01T35620W23	Assy., QRB Connector

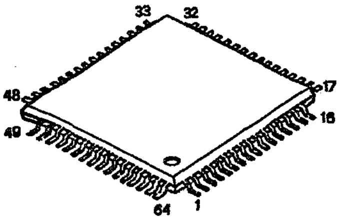
Packing Method View



Semi - Conductor Lead Identifications

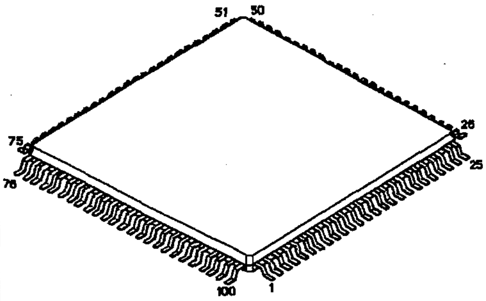
Note : The parts is not mentioned, refer to the Schematic Diagram.

45552W43 : IC401



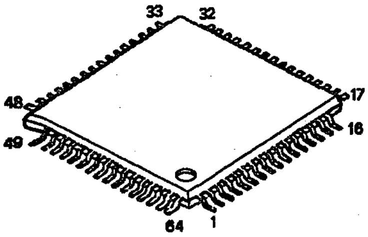
PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O
1	75850 $\overline{\text{INH}}$	O	23	V_{SS}	—	45	AREA 1	I
2	75850 CE	O	24	V_{SS}	—	46	V_{SS}	—
3	75850 CLK	O	25	V_{SS}	—	47	KR0	I
4	75850 DATA	O	26	NC	—	48	KR1	I
5	V_{SS}	—	27	KS0	O	49	KR2	I
6	V_{SS}	—	28	KS1	O	50	KR3	I
7	V_{SS}	—	29	KS2	O	51	KR4	I
8	ORG/$\overline{\text{GRN}}$	O	30	KS3	O	52	KR5	I
9	V_{SS}	—	31	V_{SS}	—	53	KR6	I
10	V_{SS}	—	32	V_{SS}	—	54	V_{SS}	—
11	V_{SS}	—	33	MODEL0	I	55	PWR+5V	I
12	V_{SS}	—	34	V_{SS}	—	56	PWR+5V	I
13	V_{SS}	—	35	$\overline{\text{RESET}}$	I	57	CONT STATUS	I
14	V_{SS}	—	36	V_{SS}	—	58	CONT COMMAND	O
15	V_{SS}	—	37	REMOCON	I	59	CONT SCK	I
16	V_{SS}	—	38	CONT START	I	60	V_{SS}	—
17	V_{SS}	—	39	AREA 0	I	61	V_{SS}	—
18	V_{SS}	—	40	V_{DD}	—	62	V_{SS}	—
19	V_{SS}	—	41	X2	O	63	V_{SS}	—
20	V_{SS}	—	42	X1	I	64	V_{SS}	—
21	V_{SS}	—	43	V_{SS}	—			
22	V_{SS}	—	44	NC	—			

65358W05 : IC501



PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CORD ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O
1	V_{SS}	—	23	CONT CMD	I	45	V_{SS}	—	67	FOR/$\overline{\text{REV}}$	O	89	AV_{REF}	I
2	V_{SS}	—	24	CONT STS	O	46	V_{SS}	—	68	PACK IN	I	90	NOSE ON	I
3	V_{SS}	—	25	CONT START	O	47	V_{SS}	—	69	O.MOTOR	O	91	AREA 0	I
4	NC	—	26	$\overline{\text{CONT RST}}$	O	48	V_{SS}	—	70	MOTOR CONT	O	92	AREA 1	I
5	V_{DD}	—	27	V_{SS}	—	49	V_{SS}	—	71	EJ SOL	O	93	TONE DEFEAT	I
6	V_{SS}	—	28	NC	—	50	V_{SS}	—	72	RF SOL	O	94	$\overline{\text{IN PAU}}$	I
7	OSC 1	I	29	NC	—	51	V_{SS}	—	73	PLAY SOL	O	95	$\overline{\text{IN INT}}$	I
8	OSC 2	O	30	NC	—	52	V_{SS}	—	74	RUN DET	O	96	MODEL0	I
9	$\overline{\text{RESET}}$	I	31	V_{DD}	—	53	PULL DOWN	—	75	PACK DOWN	I	97	V_{SS}	—
10	BATT+5V	I	32	V_{SS}	—	54	PULL DOWN	—	76	V_{DD}	—	98	V_{SS}	—
11	BUS CHECK	I	33	V_{SS}	—	55	$\overline{\text{A.MUTE}}$	O	77	V_{SS}	—	99	V_{SS}	—
12	BATT+5V	I	34	V_{SS}	—	56	PWR IC ON	O	78	TP ALARM	O	100	V_{SS}	—
13	V_{SS}	—	35	V_{SS}	—	57	NOSE PWR ON	O	79	BUZZER	O			
14	V_{SS}	—	36	V_{SS}	—	58	LCD PWR ON	O	80	OUT REM	O			
15	DTS STBY	O	37	V_{SS}	—	59	POWER CONT	O	81	$\overline{\text{BUS RST}}$	O			
16	DTS CE	O	38	V_{SS}	—	60	$\overline{\text{DOLBY C}}$	O	82	BUS R/$\overline{\text{W}}$	O			
17	$\overline{\text{DTS MUTE}}$	I	39	V_{SS}	—	61	$\overline{\text{DOLBY B}}$	O	83	BUS RS	O			
18	DTS START	O	40	V_{SS}	—	62	E.V. DATA	I/O	84	BUS IRQ	I			
19	$\overline{\text{DTS SCK}}$	O	41	V_{SS}	—	63	E.V. CLK	O	85	BUS CLK	O			
20	DTS STS	I	42	V_{SS}	—	64	M.S DET	I	86	BUS STS	I			
21	DTS CMD	O	43	V_{SS}	—	65	LEVEL O.FAST	O	87	BUS CMD	O			
22	$\overline{\text{CONT SCK}}$	O	44	V_{SS}	—	66	METAL	I	88	ACC+5V	I			

55281W07 : IC504



PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O	PIN NO.	CODE ADDRESS	I/O
1	CE1	O	23	AD2	I/O	45	V_{SS}	—
2	NC	—	24	V_{SS}	—	46	V_{SS}	—
3	$\overline{\text{DTS MUTE}}$	O	25	AD1	I/O	47	MULTI PATH	I
4	SRAM STBY	O	26	AD0	I/O	48	ADJON	I
5	50K REF	O	27	LE	O	49	S.METER	I
6	$\overline{\text{RESET}}$	I	28	DTS STBY	I	50	$\overline{\text{DK}}$	I
7	X2	—	29	RDS CLOCK	I	51	$\overline{\text{RDS}}$	I
8	X1	—	30	RDS START	I	52	PLL CLOCK	O
9	V_{SS}	—	31	RDS DATA	I	53	PULL DATA OUT	O
10	PULL DOWN	—	32	PLL DATA IN	I	54	$\overline{\text{LPF SW}}$	O
11	PULL DOWN	—	33	AUDIO IN	I	55	$\overline{\text{IF MUTE}}$	O
12	PULL DOWN	—	34	DTS START	I	56	PLL CE	O
13	A12	O	35	DTS COMMAND	I	57	NC	—
14	A11	O	36	RXD	I	58	LW	O
15	A10	O	37	NC	—	59	FM/$\overline{\text{AM}}$	O
16	A9	O	38	DTS CLOCK	I	60	LOCAL/$\overline{\text{DX}}$	O
17	A8	O	39	DTS STATUS	O	61	MONO	O
18	AD7	I/O	40	V_{DD}	—	62	DTS CE	I
19	AD6	I/O	41	V_{DD}	—	63	SD	I
20	AD5	I/O	42	AV_{SS}	—	64	$\overline{\text{WR}}$	O
21	AD4	I/O	43	AV_{REF}	—			
22	AD3	I/O	44	$\overline{\text{ST}}$	I			

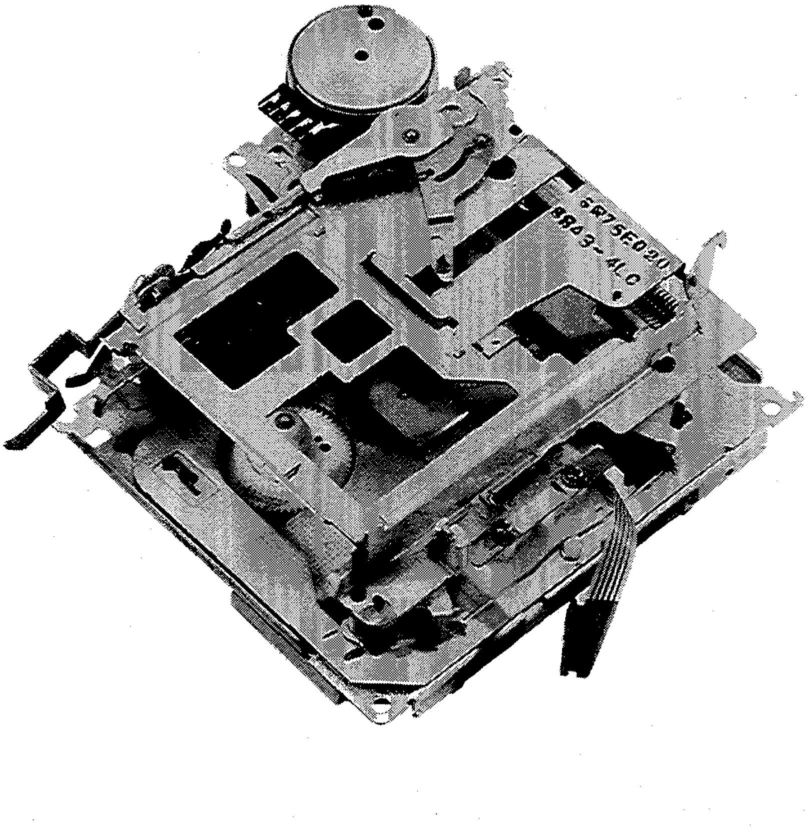
ALPI-00293

ALPINE®

SERVICE MANUAL

Cassette Deck Mechanism

ADDENDUM & REVISED(V)



GR/GR-Y SERIES

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Cassette Deck Assembly Parts List (GR75E Series) (1/4) .... 19 to 20

Exploded View (GR75L Series) (2/4) .... 21 to 22

Cassette Deck Assembly Parts List (GR75L Series) (2/4) .... 23 to 24

Exploded View (GR-Y Series) (3/4) .... 25 to 26

Cassette Deck Assembly Parts List (GR-Y Series) (3/4) .... 27 to 28

Exploded View (GR75H Series) (4/4) .... 29 to 30

Cassette Deck Assembly Parts List (GR75H Series) (4/4) .... 31 to 32

List of Usable Lock Washers

	SIZE	PARTS NO.	QUANTITY			
			GR75E Series	GR75L Series	GR-Y Series	GR75H Series
1	(M1.2 × 3.5 × 0.25)	04B41345P01	4	4	4	2
2	(M1.7 × 3.5 × 0.25)	04B41345P02	1	1	1	4
3	(M1.2 × 2.5 × 0.25)	04B41345P11	8	8	8	9
4	(M1.7 × 3.5 × 0.35)	04B41345P12	2	2	2	2
5	(M1.2 × 3.5 × 0.35)	04B41345P15	2	2	2	2
6	(M1 × 2.5 × 0.25)	04B41345P17	1	1	1	2
7	(M2.6 × 5 × 0.25)	04B41345P29	1	1	1	1
8	(M3.1 × 8 × 0.05)	04B41345P30	1	1	1	1
9	(M3.1 × 5 × 0.35)	04B41345P32	2	2	2	2
10	(M1.2 × 2.5 × 0.3)	04B41345P34	1	1	1	0
11	(M1.7 × 2.8 × 0.25)	04B41345P35	1	1	1	2
12	(M2.1 × 4 × 0.25)	04B41345P37	1	1	1	0
13	(M2.1 × 4 × 0.13)	04S40075G05	2	2	2	0
14	(M2.1 × 4 × 0.3)	04S40075G58	0	0	0	1

List of Usable Oil

1) Molykote G paste
2) Grease EM-30L
3) Grease PG-671

List of Usable Jigs

1) GR bottom gear jig (Part No. 44A20788W01)
2) Head height adjustment gauge
   AI-500 (Part No. AI-500)

Memo

Disassembly, Assembly and Replacement of Functional Parts

1. Disassembly and Assembly of Bottom Cover

(1) Turn the mechanism around as shown in Figure 1.
(2) Remove M1 lock washer ① as shown in Figure 1.
(3) Remove three screws ② as shown in Figure 1.
(4) Lift the bottom cover slowly from the position Ⓐ-1, pull the hooks out of the holes in the chassis, and remove the bottom cover as shown in Figure 1.
(5) When remounting the bottom cover, first turn the front of the mechanism up as shown in Figure 2.
(6) Slide the slider in the direction Ⓐ-2 as shown in Figure 2.
(7) Push down the cassette holder in the direction Ⓐ-3 as shown in Figure 2.
(8) Pull the door pin in the direction Ⓐ-4 so that the mechanism is locked in as shown in Figure 2.
(9) Turn the mechanism around as shown in Figure 3.
(10) Pull the automatic metal lever in the direction Ⓐ-5 and the RF solenoid chip in the direction Ⓐ-6 as shown in Figure 3.
(11) Insert the hooks of the bottom cover into the chassis in the direction Ⓐ-7, and then join the part Ⓐ-8 of the bottom cover to the chassis slowly, making sure that the 3 points indicated with the straight lines in the Figure 3 are fitted properly.
If there are troubles in mounting the bottom cover, do not apply force but remove the bottom cover once again and check the positions of the individual parts. (Refer to Figure 3.)
(12) Since the hooks marked Ⓐ-8 will be lifted slightly as shown in Figure 4, insert the jig through the hole Ⓐ-9, and fix it turning the jig slightly in the direction Ⓐ-11.
Instead of operation (12), turn the gear nose slowly with a precision screwdriver etc., taking care not to damage it.
After 2 to 3 turns, it will click into place.
(Refer to Figures 4 and 5.)
(13) Fix the screws and the lock washer that have been removed.

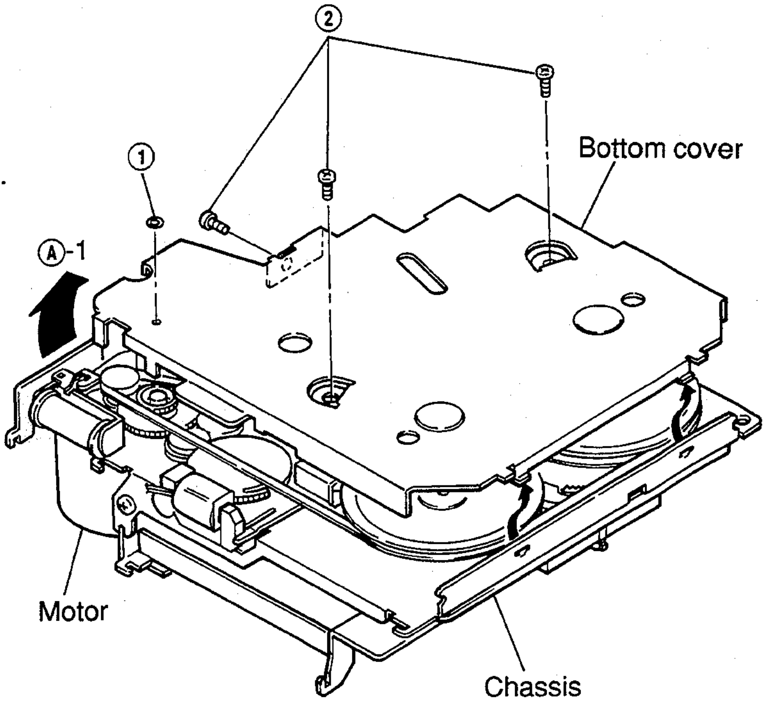


Figure 1

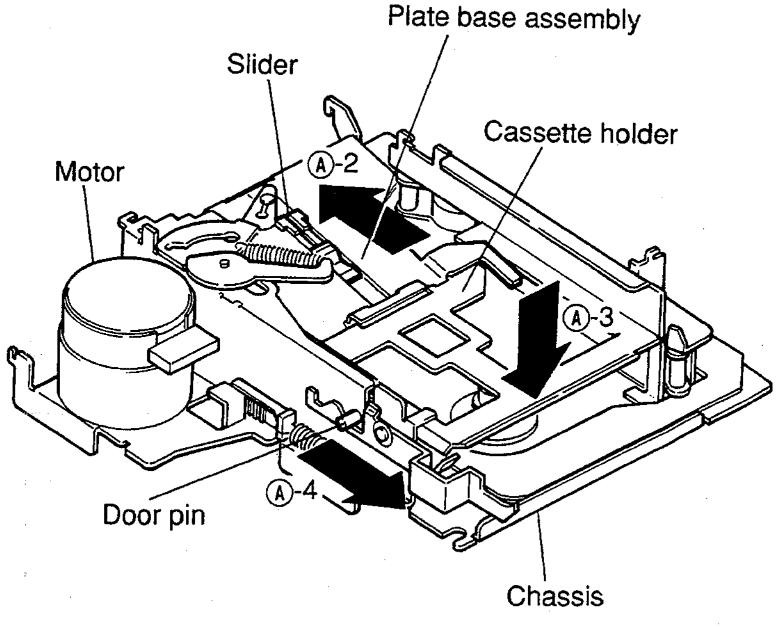


Figure 2

(14) Insert the jig into the hole Ⓐ-9 as shown in Figure and rotate the eject solenoid counterclockwise about 20 times, pulling it in the direction Ⓐ-10 with the finger.
Then the eject operation is completed.
Instead of operation (14), the eject operation can be performed by mounting the mechanism to the product. (Refer to Figures 4 and 5.)

Note: Do not reuse the used lock washers for mounting.
When turning the mechanism, be careful not to drop the gear and the flywheel.
Fasten the three screws with a fastening torque of 6 kg.cm.

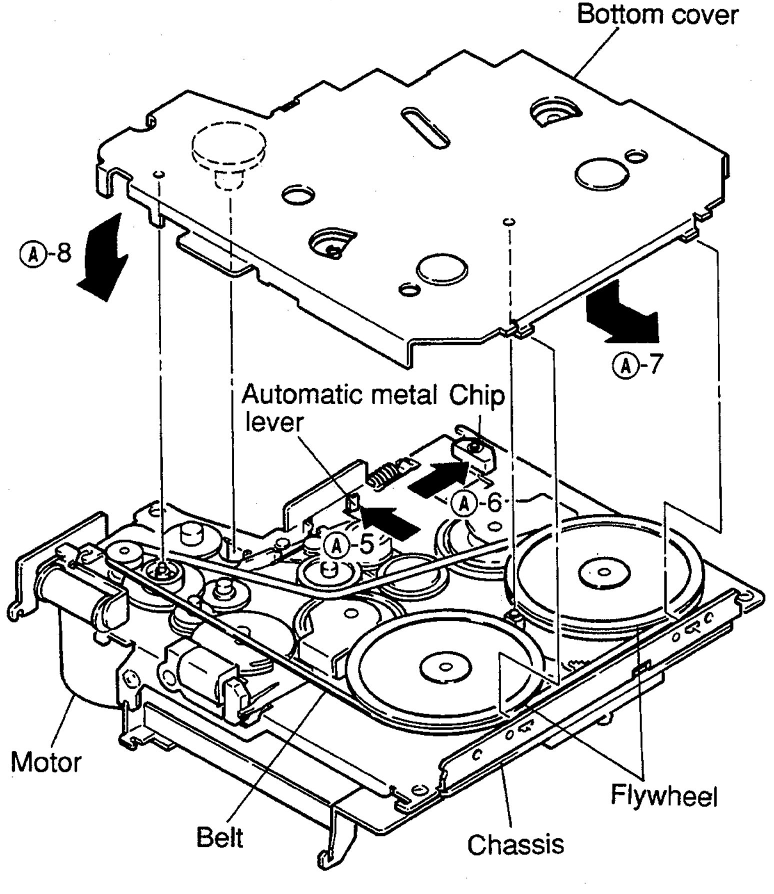


Figure 3

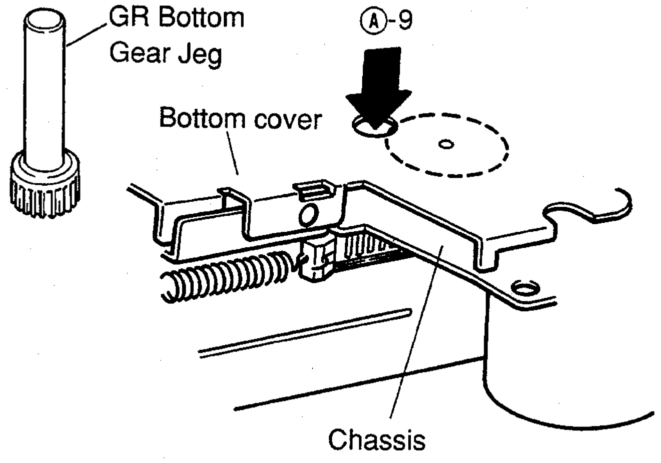


Figure 4

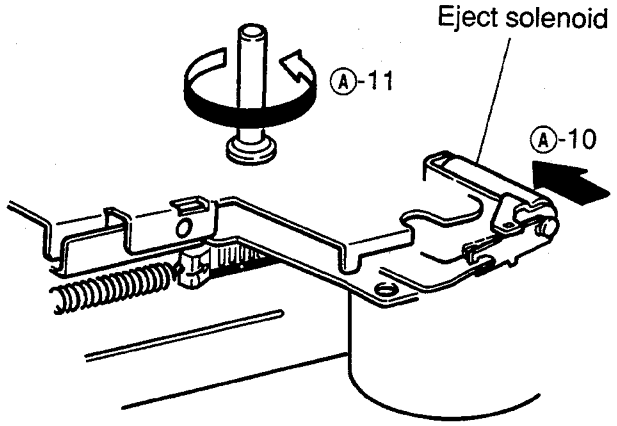


Figure 5

2. Replacement of the bottom cover mounting parts

a. Replacement of the eject gear

(1) Remove M1.2 lock washer ③ as shown in Figure 6.
(2) Pull the eject pinion out of the eject gear and remove the eject gear as shown in Figure 6.
(3) Apply the molykote E paste to the section Ⓑ-1, and mount the eject gear following the removal steps in the reverse order. After replacement is finished, make sure that the gear rotates smoothly. (Refer to Figure 6.)

Note: Do not reuse the used lock washers for remounting.
Take care to avoid damage by piercing and tearing.

b. Replacement of the RF solenoid

(1) Remove two solders ④ and remove the RF solenoid from the bottom cover by pulling it up as shown in Figure 6.
(2) Replace the solenoid with a new one, and remount it following the removal steps in the reverse order as shown in Figure 6.

Note: When removing solder ④, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged.

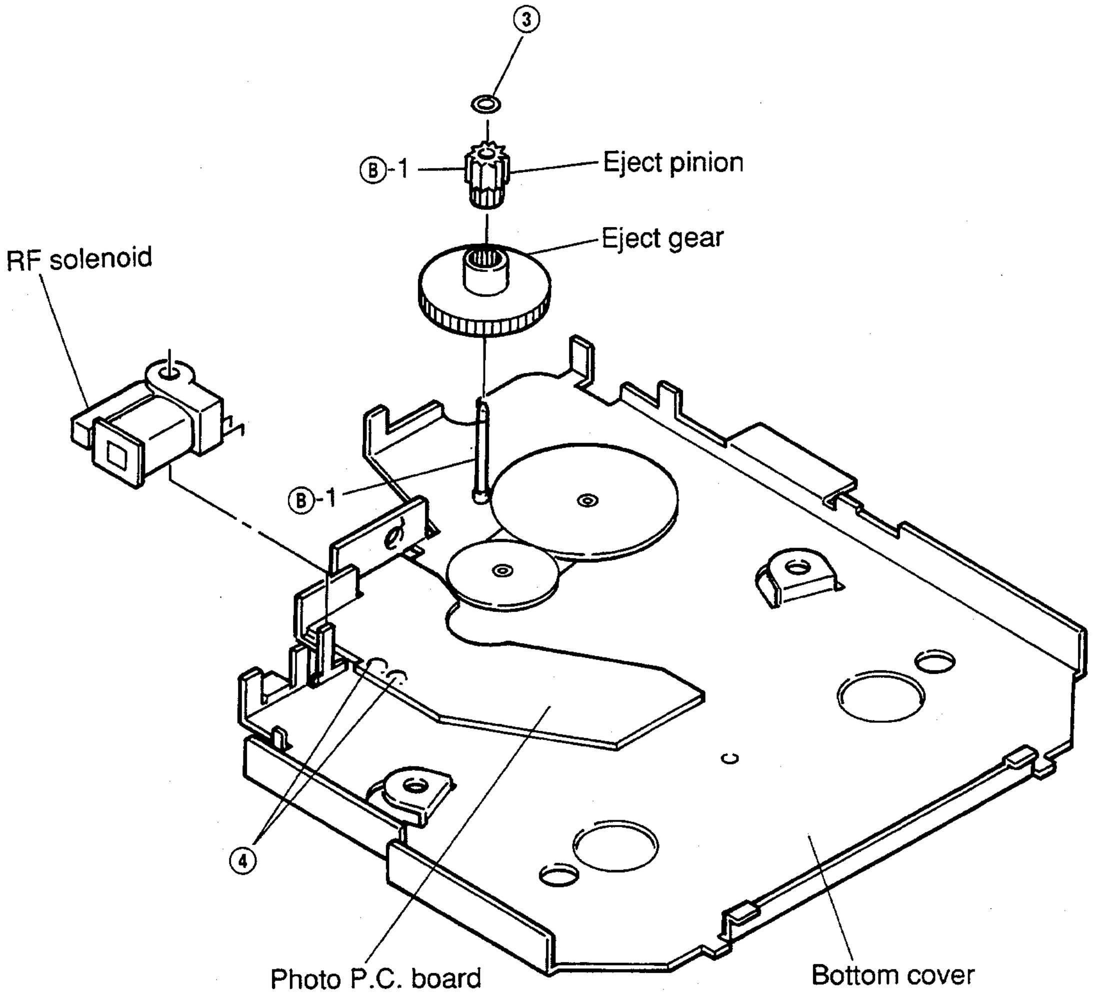


Figure 6

c. Replacement of the photo sensor

(1) Remove four solders ⑤ as shown in Figure 7.
(2) Remove the photo guide together with the photo sensor from the photo P.C. board as shown in Figure 7.
(3) Insert the new photo sensor into the photo guide, and bend the legs of the photo sensor in the direction marked Ⓑ-2 as shown in Figure 7.
(4) Insert the photo guide into the P.C. board and solder the legs so that the photo sensor is set as indicated by ⬚ in Figure 7.

Note: When using the soldering iron, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged. Also take care that the photo guide is properly fixed and straight.

d. Replacement of the detector switch (Automatic metal pack-in)

(1) Remove 4 solders ⑥ with which the switch is fixed as shown in Figure 7.
(2) Prepare the terminals of the switch of the new solder as shown in Figure 8.
(3) After that, insert the switch into the photo P.C. board, and solder the terminals.

Note: When using the soldering iron, refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Also take care that the switch guide is properly fixed and straight.

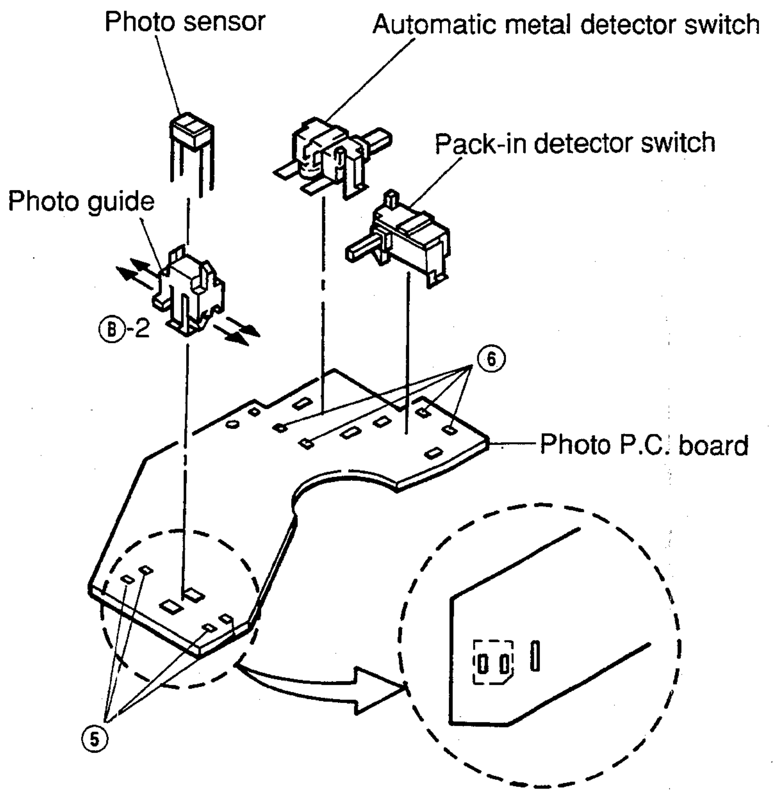


Figure 7

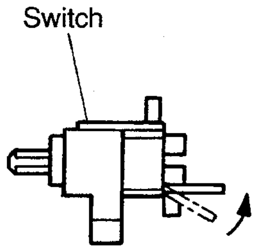


Figure 8

3. Replacement of the mounting parts on the rear of the main chassis

a. Replacement of the belt
  (1) After removing the bottom cover, remove the belt.
  (2) Clean the new belt with absolute alcohol, and fix it as shown in Figure 9.

Note: When fixing the belt, make sure that it is not twisted or dirty. When removing the belt, do not turn up the front of the chassis.

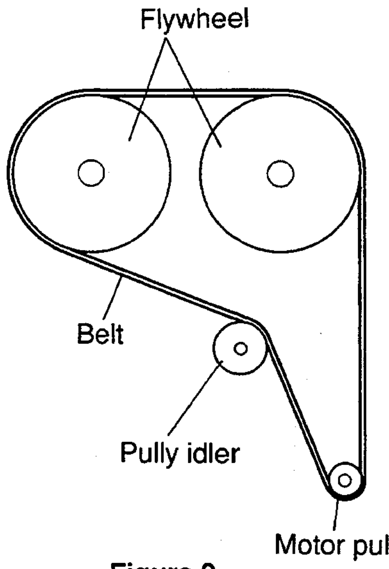

Flywheel
Belt
Pully idler
Motor pully

Figure 9

b. Replacement of the motor
  (1) After removing the belt, remove spring ⑦ as shown in Figure 10.
  (2) Remove solder ⑧-1, and remove the parallel wire (5P) from the control P.C. board as shown in Figure 11.
  (3) Remove two screws ⑨ and ⑩, and remove the motor, taking care not to damage the motor idler gear. (Refer to Figure 10.)
  (4) Mount the new motor following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Since the parallel wire is very easily damaged, handle it with care.
Fasten the two screws with a fastening torque of 3 kg.cm.

*When inserting the clutch spring, be careful of the inserting direction as shown in the Figure.

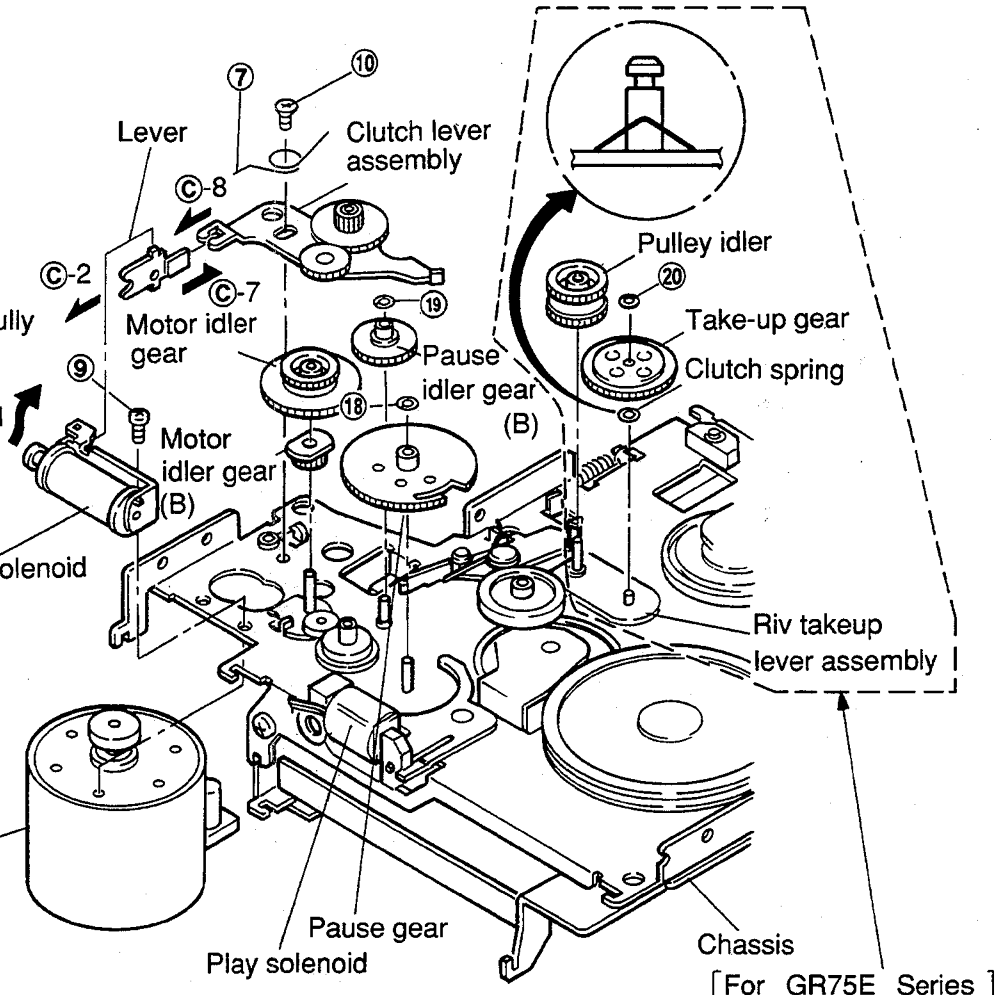

⑦
⑩
Lever
Clutch lever assembly
Ⓒ-8
Ⓒ-2
Ⓒ-7
Motor idler gear
⑨
Ⓒ-1
Motor idler gear (B)
Eject solenoid
Motor
⑲
Pause idler gear (B)
⑱
Pulley idler
⑳
Take-up gear
Clutch spring
Riv takeup lever assembly
Pause gear
Play solenoid
Chassis

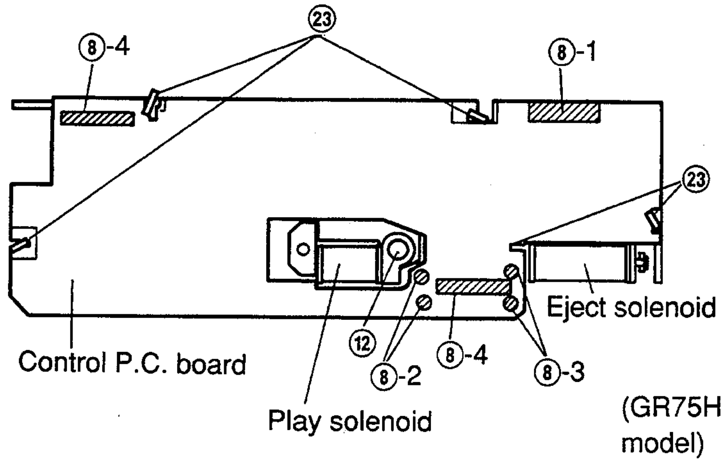
Figure 10

[For GR75E Series
GR75L Series
GR-Y Series
models]

c. Replacement of the flywheels
  (1) After removing the belt, pull out the two flywheels. Take care not to loose the polyslider washer ⑪ located between the flywheel and the chassis. (Refer to Figure 12.)
  (2) Fix the polyslider washer to the new flywheel and mount the flywheel to the chassis.

d. Replacement of the play solenoid
  (1) Remove the two solders ⑧-2 as shown in Figure 11.
  (2) Remove one screw ⑫ and remove the solenoid as shown in Figure 11.
  (3) Mount the new solenoid following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 2.3 kg.cm.


㉓
⑧-4
⑧-1
㉓
Eject solenoid
Control P.C. board
⑫
⑧-2
⑧-4
⑧-3
Play solenoid

[For GR75E Series model]

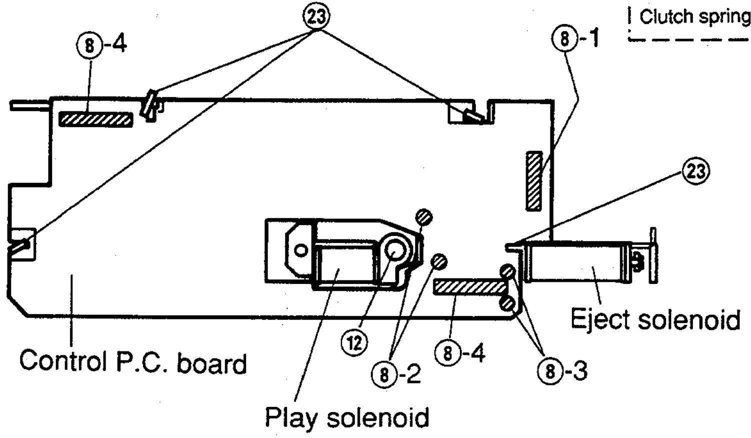

㉓
⑧-4
⑧-1
㉓
Eject solenoid
Control P.C. board
⑫
⑧-2
⑧-4
⑧-3
Play solenoid

Figure 11

[For GR75L Series
GR-Y Series
GR75H Series models]

e. Replacement of the eject solenoid
  (1) Remove two solders ⑧-3. Take care not to loose the tube that protects the wire. (Refer to Figure 11.)
  (2) Remove screw ⑨ and remove the solenoid as shown in Figure 10.
  (3) Align position Ⓒ-1 of the new solenoid with position Ⓒ-2 of the lever and fasten the screw as shown in Figure 10.
  (4) Lead the wire through the tube and solder it.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 3 kg.cm. As the solenoid wires are not insulated, do not let them cross each other.

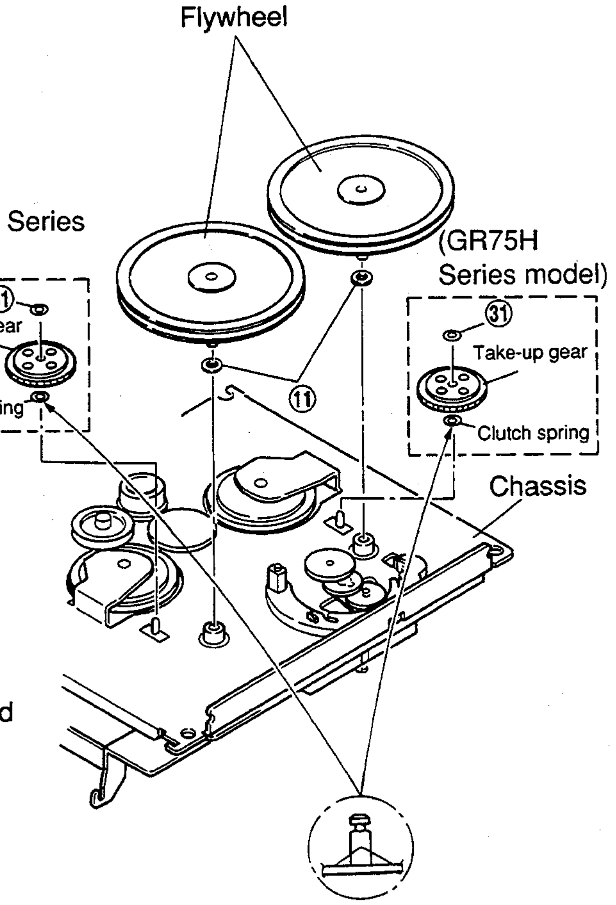

Flywheel
(GR75H Series model)
㉛
Take-up gear
Clutch spring
(GR75H Series model)
㉛
Take-up gear
Clutch spring
⑪
Chassis

Figure 12

f. Replacement of gears

(f-1) Replacement of the reverse idler gear

(1) Remove M1.2 lock washer ⑬, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.
(2) Remount following the removal steps in the reverse order.

(f-2) Replacement of the sun gear

(1) Remove M1.2 lock washer ⑭, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.
(2) Mount it, following the removal steps in the reverse order.

(f-3) Replacement of the fixing gear

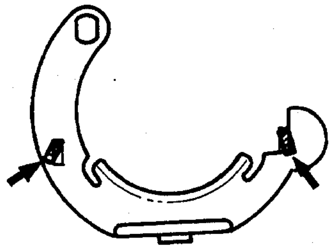
(1) Adjust the two mounting claws for the fix gear on the chassis ⑮ and remove the section ⓒ-3 of the gear by pulling it up in the direction of the arrow shown in Figure 13.
(2) Insert the section ⓒ-4 of the new gear into the chassis, and mount it following the removal steps in the reverse order as shown in Figure 13.

(f-4) Replacement of the reverse lever assembly and planet gear

(1) Remove both the fixing gear and the sun gear and remove the reverse lever assembly as shown in Figure 13.
(2) Remove M1.7 lock washer ⑯ and remove the planet gear as shown in Figure 14.
(3) Mount the new planet gear and reverse lever following the removal steps in the reverse order.

Notes on f-1 through f-4:
After mounting all parts, check if the reverse lever moves in the directions marked ⓒ-5 when the reverse gear is turned clockwise and counterclockwise.

*After mounting the fixing gear, bend the claws ⑮ into the form of as shown in the Figure.



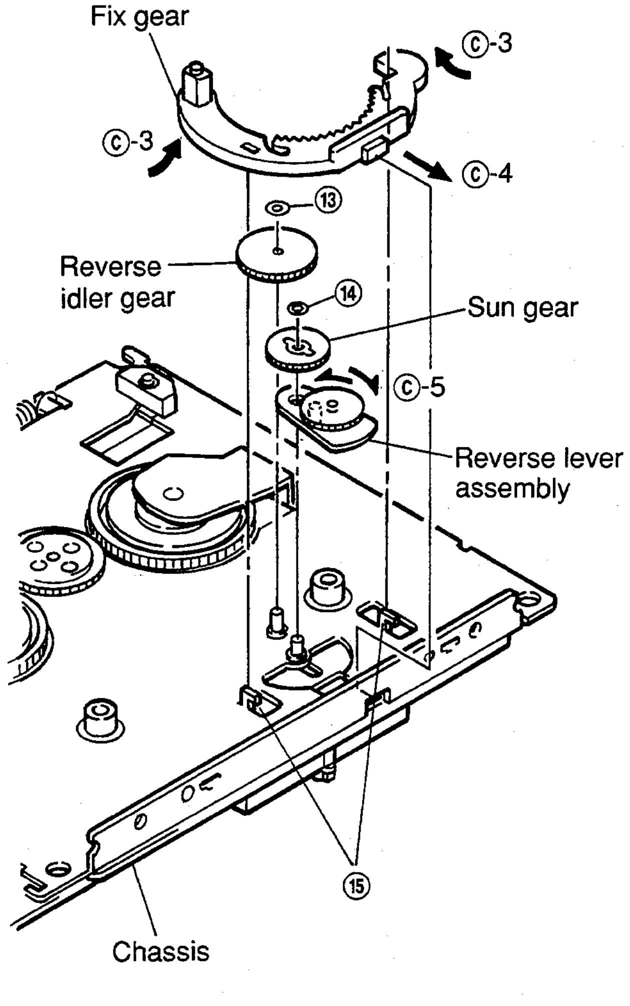


Figure 13

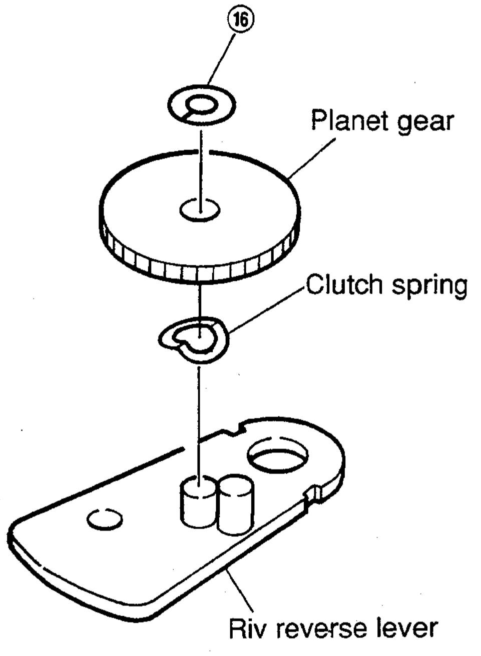
(f-5) Replacement of the clutch lever assembly and eject idler gear

(1) After removing the motor, remove the motor idler gear and the motor idler gear (B) and remove the clutch lever assembly as shown in Figure 10.
(2) Remove M1.2 lock washer ⑰ and remove the eject idler gear as shown in Figure 15.
(3) Mount the new gears and clutch lever following the removal steps in the reverse order.

Note: When mounting the gears to the lever, apply grease (PG-671) to the position ⓒ-6 as shown in Figure 15. Align the position ⓒ-7 with the position ⓒ-8 and mount the clutch lever as shown in Figures 10 and 15.

(f-6) Replacement of the pause gear

(1) Remove M1.2 lock washer ⑱ and remove the pause gear pulling it up from the stud of the chassis as shown in Figure 10.
(2) Mount the new gear following the removal steps in the reverse order.



[Disassembly Reverse Lever Assembly]

Figure 14

(f-7) Replacement of the pause idler gear (B)

(1) After removing the motor and the motor idler gear, remove M1.2 lock washer ⑲ and remove the gear by pulling it up from the stud of the chassis as shown in Figure 10.
(2) Mount the new gear by following the removal steps in the reverse order.

(f-8) Replacement of the take-up gear

(1) After removing the belt and the pulley idler gear, remove M1.2 lock washer ⑳ by pulling it up from the stud of the riv take-up lever assembly as shown in Figure 10.
After removing the Flywheel, remove M1.2 lock washer ㉛ and remove the gear by pulling it up from the stud of the chassis as shown in figure 12. [For GR75H Series model]
(2) Remount the take-up gear following the removal steps in the reverse order.

Notes on f:
Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

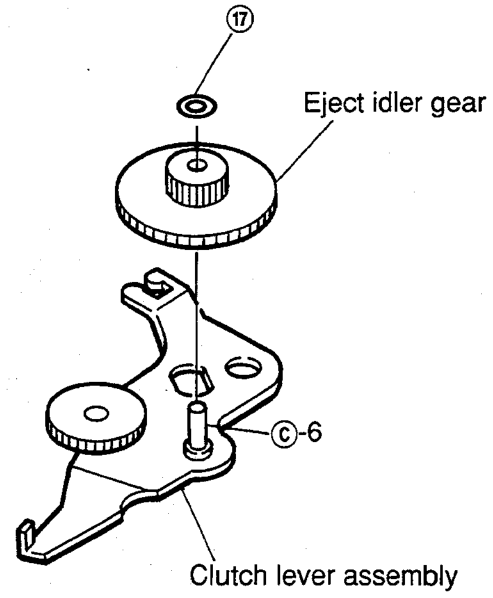


Figure 15

4. Replacement of the parts mounted on the front of the main chassis

a. Replacement of the audio P.C. board
  (1) Remove two solders ㉑ and remove the parallel wire (7P) and the head P.C. board as shown in Figure 16.
  (2) Adjust the two claws ㉒ to the rectangular holes on the P.C. board and remove the P.C. board as shown in Figure 16.
  (3) After replacement, mount the new P.C. board following the removal steps in the reverse order.

Note: The head P.C. board and the parallel wire are easily damaged. Handle them with care. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board.

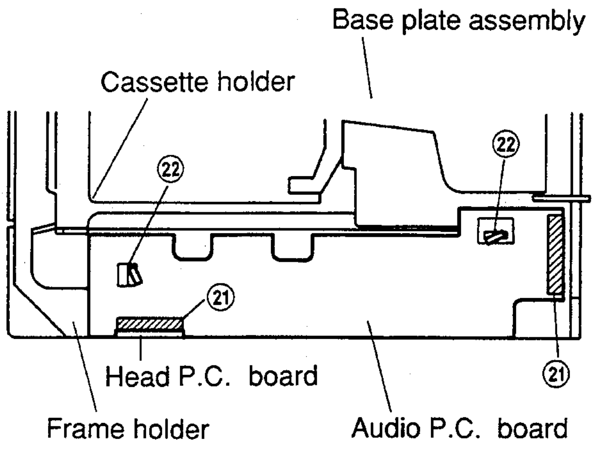


Figure 16

b. Replacement of the control P.C. board
  (1) Remove seven solders ⑧ and remove the three parallel wires and the wires of the eject solenoid and of the play solenoid as shown in Figure 11.
  (2) Remove five claws ㉓ and remove the P.C. board as shown in Figure 11. [For GR75E Series model] Remove four claws ㉓ and remove the P.C. board as shown in Figure 11. [For GR75L Series, GR-Y Series, GR75H Series models]
  (3) After replacing the old P.C. board with a new one, mount it following the removal steps in the reverse order.

Note: As mentioned in Item 4-a, handle the parallel wires carefully, and be sure that the temperature of the soldering iron and the soldering time are proper. As the wires of the eject solenoid are not insulated, do not let them cross each other.

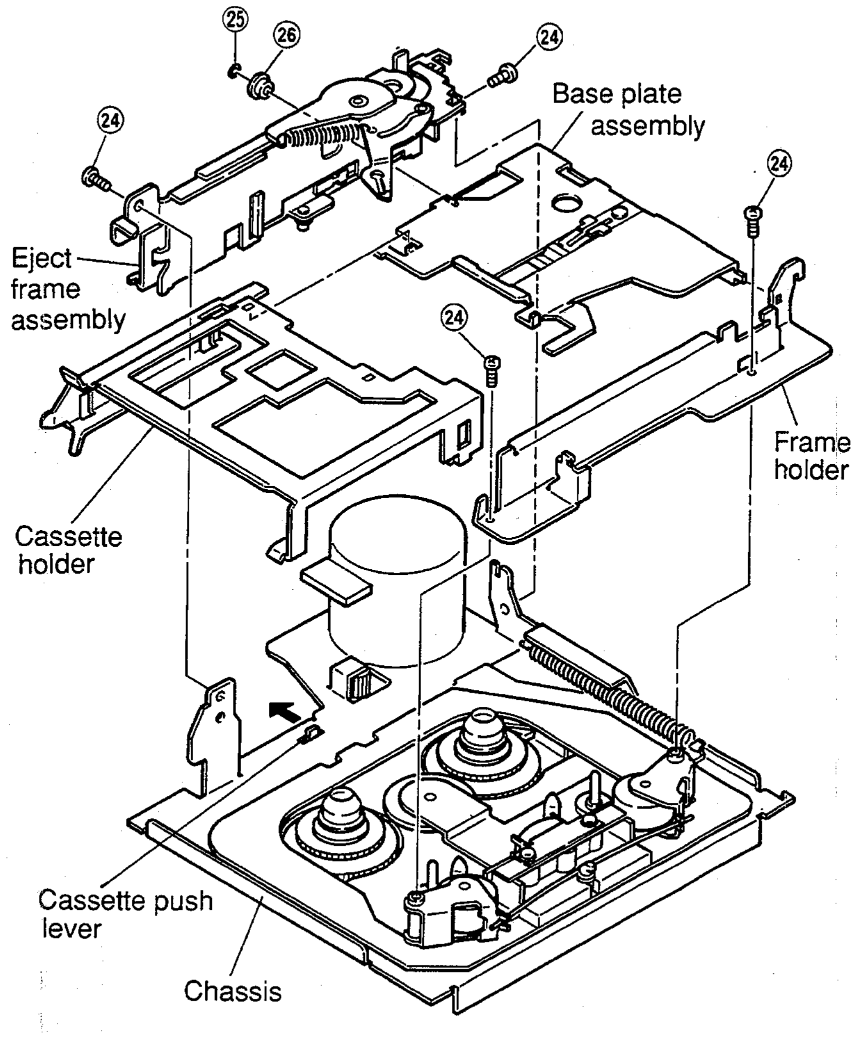


Figure 17

c. Disassembly and assembly of the cassette holder
  (1) Remove four screws ㉔ and remove the eject frame assembly and the frame holder as shown in Figure 17.
  (2) Remove M1.2 lock washer ㉕ and plate base roller ㉖ and remove the cassette holder and the base plate assembly as shown in Figure 17.
  (3) Remount them following the removal steps in the reverse order.

Notes: 1. When mounting the cassette holder and the base plate, insert the slider shaft into the eject arm and fix them turning the slider shaft in the direction indicated by the arrow in the figure. Make sure that the cassette holder and the base plate are in the cassette-in mode during this operation. (Refer to Figure 18).
2. When mounting the eject frame assembly, push the cassette push lever in the direction indicated by the arrow in the Figure 17.
3. When mounting the base plate assembly and the eject frame assembly, or when mounting the eject frame assembly to the chassis, do not apply excessive force to avoid deformations of the eject arm and the frame.
4. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

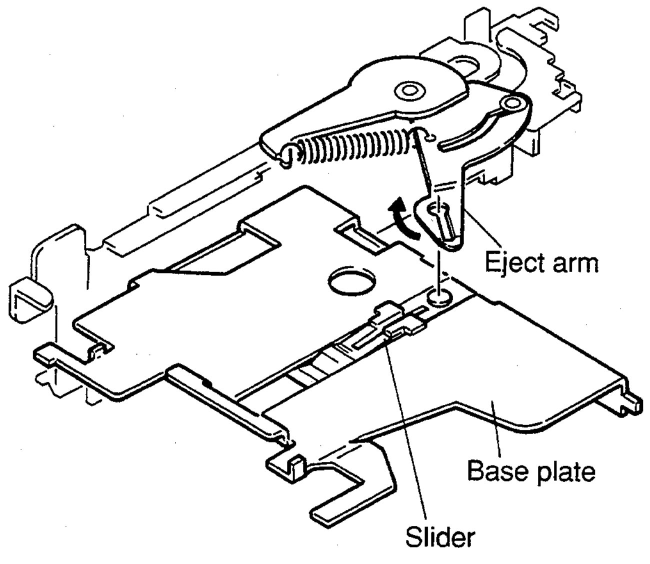


Figure 18

d. Replacement of the reels
  (1) Remove M1.7 two lock washers ㉖ (Refer to figure 19).
  (2) Move the select lever in the direction marked Ⓓ-1 in the Figure and remove the reel by gripping the reel gear as shown in Figure 19.
  (3) After replacement, mount the new reels following the removal steps in the reverse order.
  (4) After mounting, check the tape speed and the wow and flutter with test tape MTT-111.

Note: Since the reel is easily loosened if the cap is gripped, always handle it gripping the gear. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

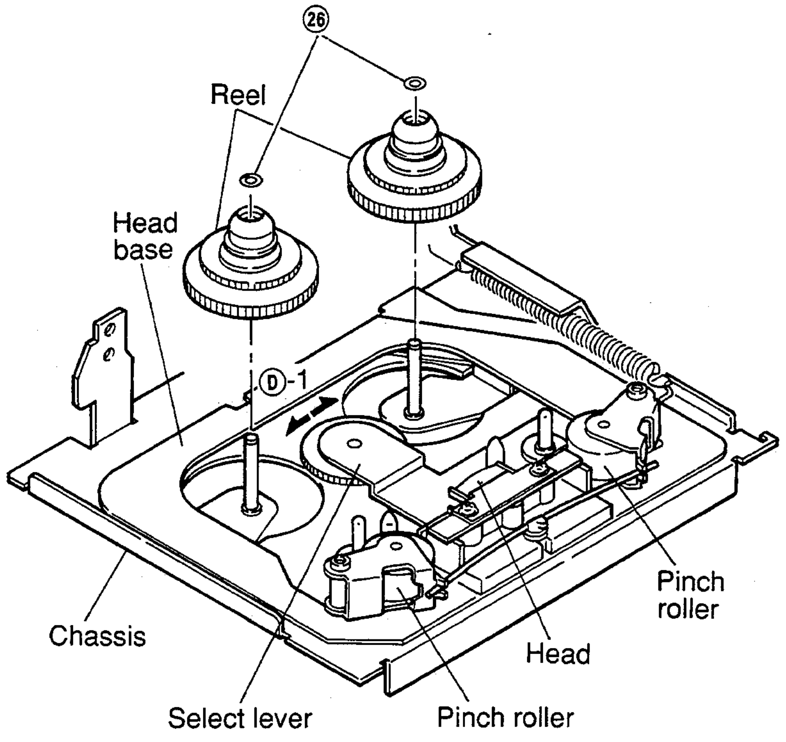


Figure 19

e. Replacement of the pinch rollers

(1) Remove pinch roller spring ㉗ as shown in Figure 20.
(2) Remove M3.1 two lock washers ㉘ and remove the pinch roller as shown in Figure 20.
(3) Mount the pinch rollers following the removal steps in the reverse order.
Apply insulation coating to the position Ⓓ-2 of the pinch roller as shown in Figure 20.

Note: Make sure that the pinch rollers are thoroughly fixed and that they are not deformed. Do not reuse used lock washers. Take care to avoid damage by piercing and tearing.

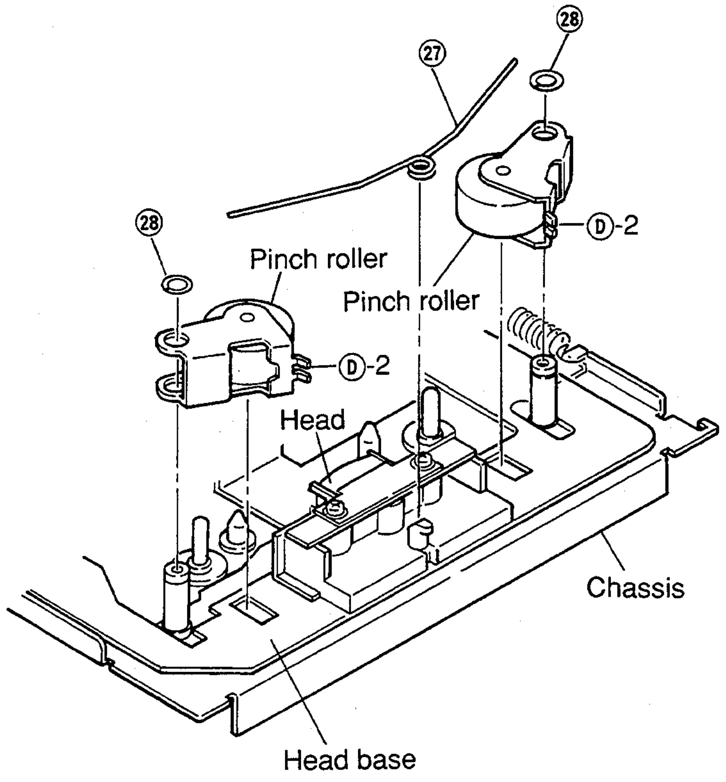

㉘
㉗
㉘
Ⓓ-2
Pinch roller
Pinch roller
Ⓓ-2
Head
Chassis
Head base

Figure 20

f. Replacement of the head

(1) After removing the pinch roller spring, remove two screws ㉙ as shown in Figure 21.
(2) Remove solder ㉚ and remove the head from the head P.C. board as shown in Figure 22.
(3) After replacement, mount the new head following the removal steps in the reverse order.

Notes: 1. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board. Make sure that the head P.C. board is not lifted.
2. Fasten the two screws with a fastening torque of 2.3 kg.cm. Note that the tension of the head spring can be decreased if the screws are fastened too strongly.

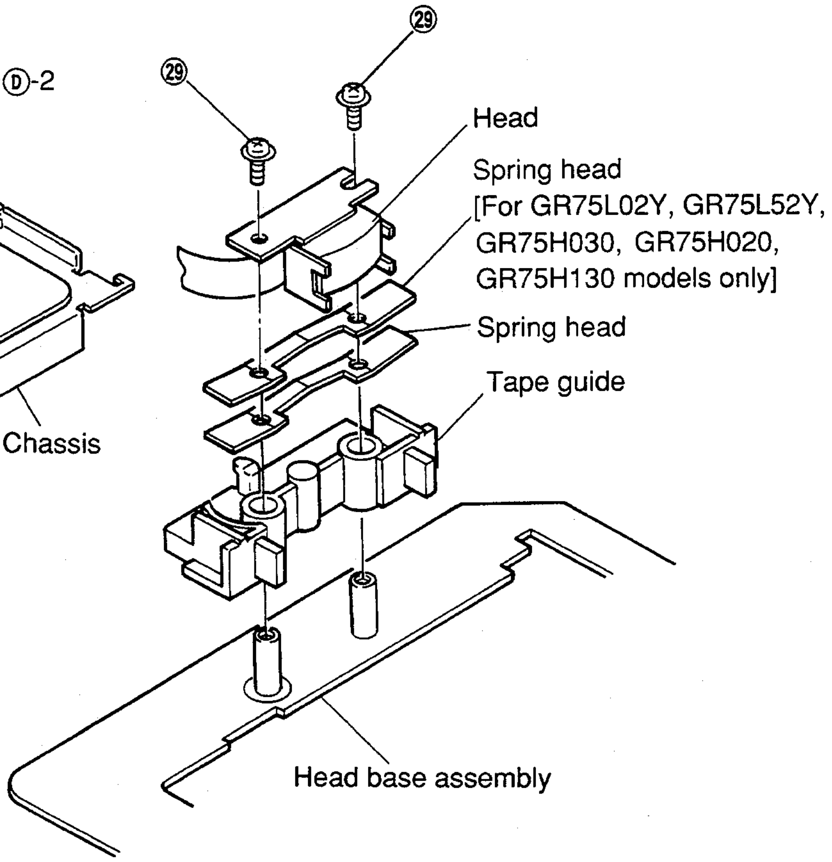

㉙
㉙
Head
Spring head
[For GR75L02Y, GR75L52Y, GR75H030, GR75H020, GR75H130 models only]
Spring head
Tape guide
Head base assembly

Figure 21

(4) Adjust the height of the head as shown in Figures 23, 24 and 25.
① Place the height adjustment gauge (AI-500) on the head base, and adjust the height so that the check bar fits in the tape head guide smoothly.
② When the check bar touches the top (or bottom) of the tape guide, insert a spacer (t 0.1 mm or polislider washer t 0.13 mm).
If necessary, remove the spacer.

Note: If you do not have a height gauge like described in (4)-①, run the tape at normal speed and adjust the height of the head and the tape head guide so that the tape does not curl.

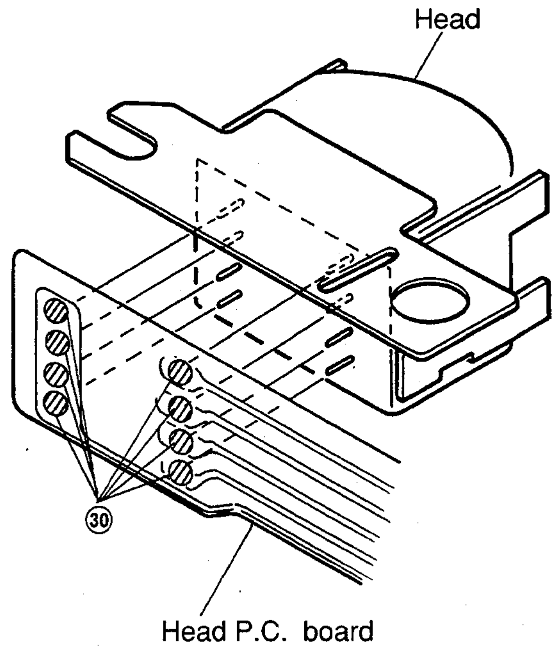

Head
㉚
Head P.C. board

Figure 22

(5) After having assembled the complete mechanism, adjust the angle of the head with test tape MTT-113C. (Refer to chapter "Adjustment of the head angle".) After the adjustment, apply the screw lock and fix the screws.

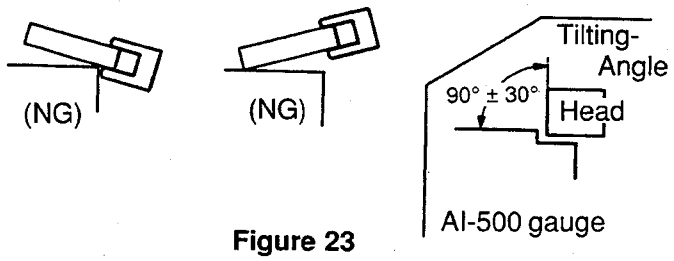

(NG)
(NG)
Tilting-Angle
90° ± 30°
Head
AI-500 gauge

Figure 23

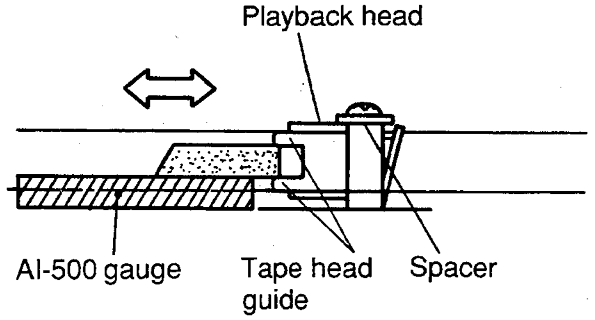
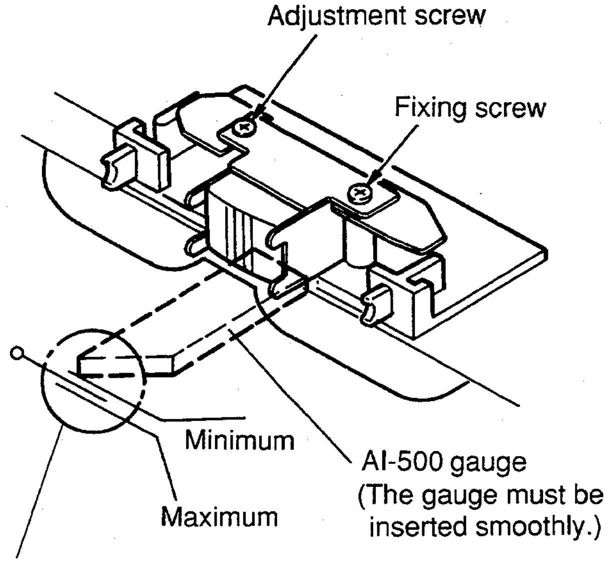

Playback head
AI-500 gauge
Tape head guide
Spacer

Figure 24

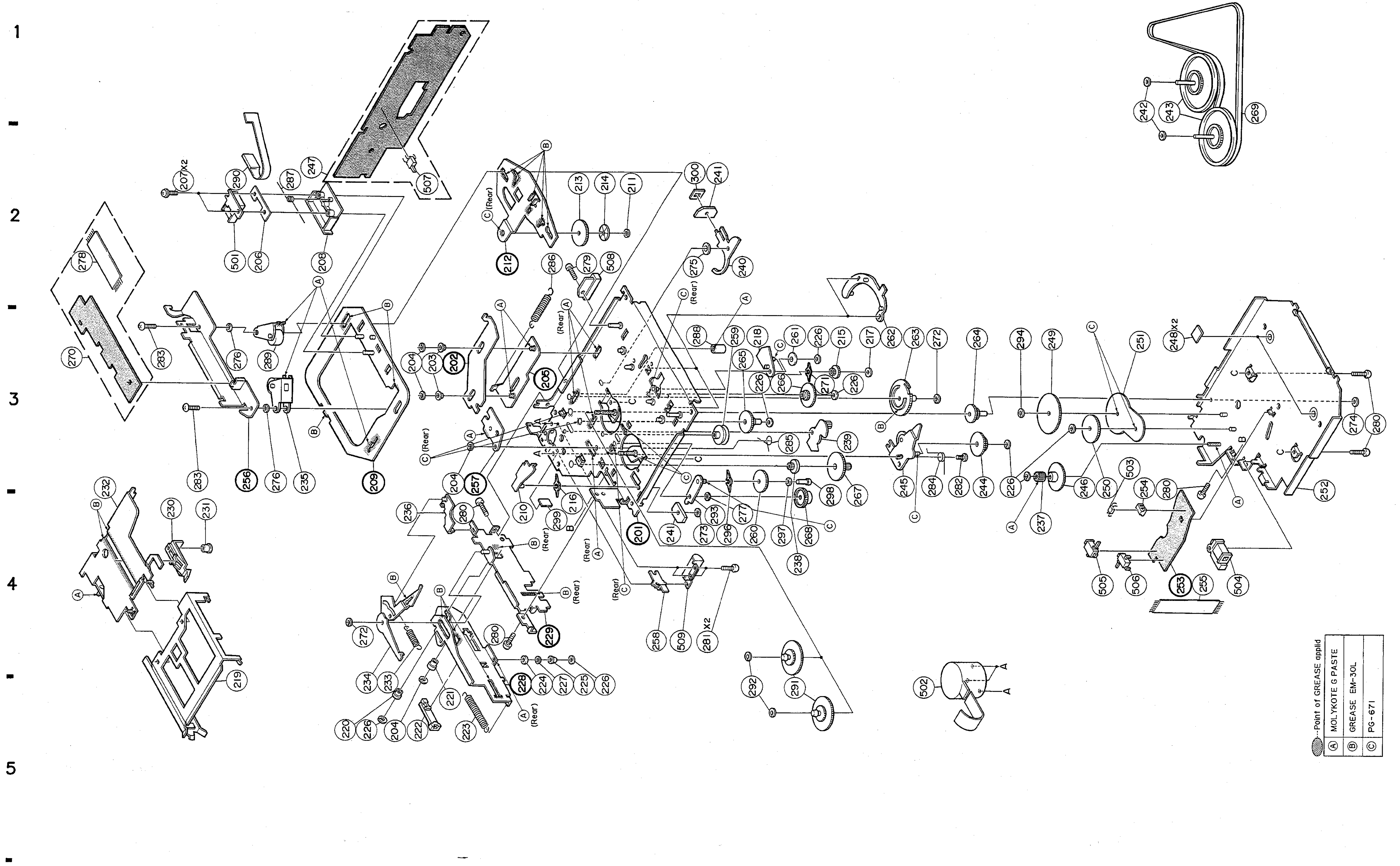

Adjustment screw
Fixing screw
Minimum
Maximum
AI-500 gauge
(The gauge must be inserted smoothly.)

The nosepiece of the gauge must be between the minimum and maximum positions.

Figure 25

Exploded View (GR75E Series) (1/4)

- **For GR75E010/01A/020 Models**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281x2
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A
B
C
(Rear)

▨	--Point of GREASE applid
Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR75E Series) (1/4)

Note : The parts without parts list are not supplied.

Symbol No.		IN-dex	Part No.	Description
	203	3-C	43A11072W01	Roller, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A31756W01	Spring, Head
	207	2-B	03S40019G03	Screw, F-Locks(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A10206W01	Assy., Riv Lever R/F Sol
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A10681W01	Reflector
	215	3-E	44A30480W01	Gear, Planet
	216	3-E	41A10097W02	Spring, Clutch
	217	3-E	04B41345P35	Washer, Lock(M1.7)
	218	3-E	01A30824W01	Assy., Riv Lever Reverse
●	219	4-B	07B40283W01	Holder, Cassette
■	219	4-B	07B40283W01	Holder, Cassette
▲	219	4-B	07B10074W01	Holder, Cassette
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
	223	5-C	41B10386W03	Spring, GR(Rack)
	224	4-C	43A10121W01	Roller, Eject A
	225	4-D	43A10360W01	Roller, Eject B
	226		04B41345P11	Washer, Lock(M1.2)
	227	4-D	43A12377W01	Roller, Eject C
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
	232	4-A	01A10212W01	Assy.,Riv Plate Base
	233	4-C	41B10386W01	Spring, Eject Arm
	234	4-B	01A10148W01	Assy., Riv Eject Arm A
	235	3-B	01B30863W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever Pack In SW
	237	4-F	44A12975W01	Pinion, Eject
	238	4-E	44A13617W01	Gear, Motor Idler(B)
	239	3-E	01A10201W02	Assy., Riv Lever Pause
	240	2-D	45A40725W01	Lever, Play Sol
	241		76T10374W01	Chip
	242	1-G	04S40075G05	Washer Polyslider (M2.1)
	243	1-G	01A10368W01	Assy., Flywheel
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W02	Assy., Riv Lever Clutch A
	246	3-F	44A10145W01	Gear, Eject
	247	2-B	01V11500W18	Assy., GR Control P.C. Board
	248	3-G	43A41656W01	Spacer, UHMW
	249	3-F	44A11063W01	Gear, Bottom A
	250	3-F	44A11064W01	Gear, Bottom B
	251	3-G	34A11122W02	Washer, GR
	252	3-H	01A10210W02	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol
	259	3-D	49A10131W01	Pulley, Idler
	260	4-E	44A10133W01	Gear, Take Up
	261	3-E	44A10134W01	Gear, Sun
	262	3-E	44B10135W01	Gear, Fix
	263	3-E	44B30484W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler A
	265	3-D	44A10379W01	Gear, Pause Idler B
	266	3-E	44A10138W01	Gear, Reverse Idler
	267	3-E	44A10139W01	Gear, Motor Idler
	268	4-E	44A11062W01	Gear, Reel Idler
	269	1-G	42A10380W01	Belt, GR
●	270	3-A	01V14700W68	Assy., GR Audio P.C. Board
■	270	3-A	01V11500W19	Assy., GR Audio P.C. Board
▲	270	3-A	01V11500W19	Assy., GR Audio P.C. Board
	271	3-E	41A30475W01	Spring, Clutch
	272		04B41345P15	Washer, Lock(M1.2)
	273	4-D	04B41345P02	Washer, Lock(M1.7)
	274	3-H	04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276		04B41345P32	Washer, Lock(M3.1)
	277	4-E	04B41345P37	Washer, Lock(M2.1)
	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F53	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cas Push
	286	2-C	41B10386W02	Spring, Sub Head

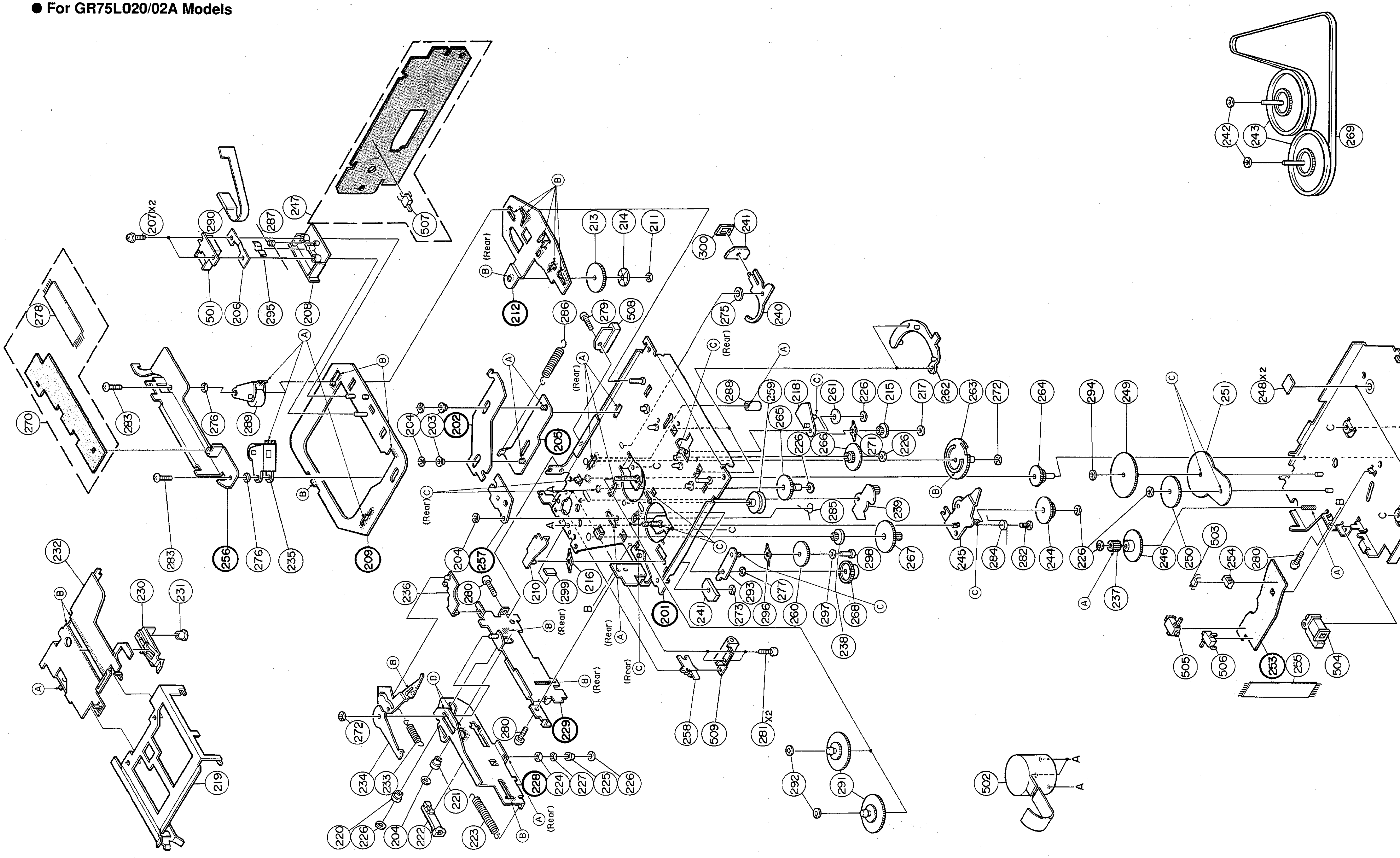
Notes:● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only Others ; Common

Symbol No.		IN-dex	Part No.	Description
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause
	289	3-B	01B30863W01	Assy., Pinch Roller
	290	2-B	84T25151W01	Head P.C. Board
	291	4-E	01T35403W01	Assy., Reel
	292	4-E	04B41345P12	Washer, Lock(M1.7)
	293	4-D	01A30161W01	Assy., Riv Lever Take Up
	294	3-F	04B41345P34	Washer Lock(M1.2)
	296	4-D	41A40910W01	Spring, Clutch
	297	4-E	43A41543W01	Washer, Som(M1.2)
	298	3-E	47A41458W01	Pin, Take Up
	299	4-C	43A40388W01	Spacer, Polyslider
	300	2-D	43A41744W01	Lock, Solenoid
				Miscellaneous
●	501	2-B	88T15971W01	Head
■	501	2-B	88T10373W01	Head
▲	501	2-B	88T10373W01	Head
	502	4-E	01V11500W64	Assy., Motor(Main, 13.2V-80mA)
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy.
	505	4-F	40T15382W01	SW., Detector (Pack Down)
	506	4-G	40T15382W01	SW., Detector(Metal)
	507	2-C	40T15222W01	SW., Detector (Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Notes:● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only Others ; Common

Exploded View (GR75L Series) (2/4)

- **For GR75L020/02A Models**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243
269
A
B
C
(Rear)

▨ --Point of GREASE applid
Ⓐ MOLYKOTE G PASTE
Ⓑ GREASE EM-30L
Ⓒ PG-671

Cassette Deck Assembly Parts List (GR75E Series) (2/4)

Symbol No.	IN-dex	Part No.	Description
203	3-C	43A11072W01	Roll, Sub Head
204		04B41345P01	Washer, Lock(M1.2)
206	2-B	41A31756W01	Spring, Head
207	2-B	03S40019G03	Screw, F-Locks(M2x4)
208	2-B	43B12545W01	Tape, Guide
210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
211	2-D	04B41345P29	Washer, Lock(M2.6)
213	2-D	44A10295W01	Gear, Sensor
214	2-D	14A10681W01	Reflector
215	3-E	44A30480W01	Gear, Planet
216	3-E	41A10097W02	Spring, Clutch
217	3-E	04B41345P35	Washer, Lock(M1.7)
218	3-E	01A30824W01	Assy., Riv Lever Reverse
219	4-B	07B40283W01	Holder, Cassette
220	5-B	43A12583W01	Roller, Eject
221	5-C	43A63281F01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-C	41B10386W03	Spring, GR(Rack)
224	4-C	43A10121W01	Roller, Eject(A)
225	4-D	43A10360W01	Roller, Eject(B)
226		04B41345P11	Washer, Lock(M1.2)
227	4-D	43A12377W01	Roller, Eject(C)
230	4-A	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-A	01A10212W01	Assy., Riv Plate Base
233	4-C	41B10386W01	Spring, Eject Arm
234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
235	3-B	01B30863W02	Assy., Pinch Roller
236	4-C	45A10087W01	Lever, Pack In SW.
237	4-F	44A20314W01	Pinion, Eject
238	4-E	44A13617W01	Gear, Motor Idler(B)
239	3-E	01A10201W02	Assy., Riv Lever Pause
240	2-E	45A40725W01	Lever, Play Sol
241		76T10374W01	Chip
242	1-G	04S40075G05	Washer, Polyslider (M2.1)
243	1-G	01A10368W01	Assy., Flywheel
244	3-F	44A10141W01	Gear, Eject Idler
245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
246	3-F	44A10145W01	Gear, Eject
247	2-B	01V23700W03	Assy., GR Control P.C. Board

Notes : ◆ ; For GR75L020 model only ○ ; For GR75L02A model only
Others ; Common

Note : The parts without parts list are not supplied.

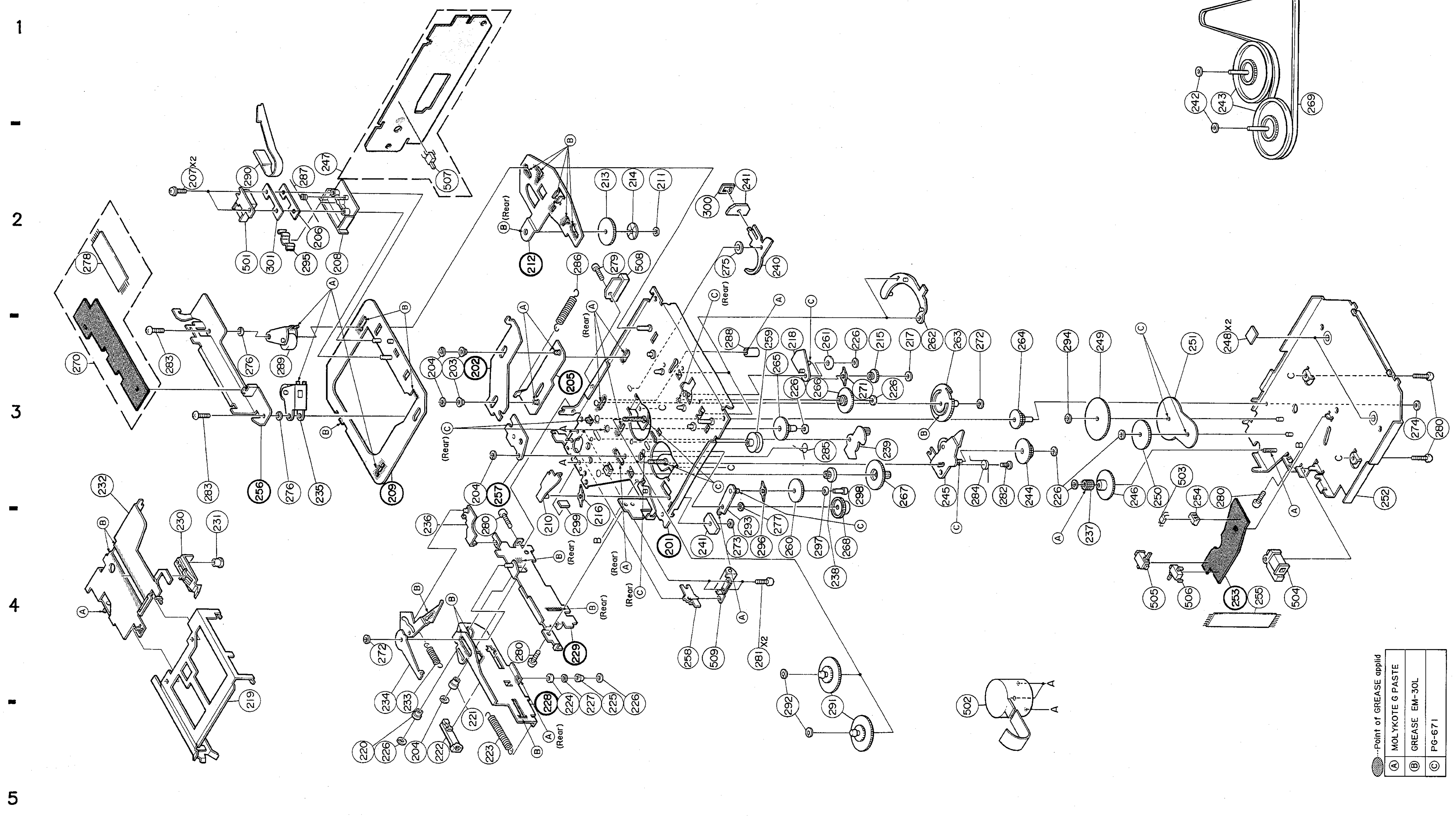
Symbol No.	IN-dex	Part No.	Description
248	3-G	43A41656W01	Spacer, UHMW
249	3-F	44A11063W01	Gear, Bottom(A)
250	3-F	44A11064W01	Gear, Bottom(B)
251	3-G	34A11122W02	Washer, GR
252	3-H	01A10210W02	Assy., Riv. Cover Bottom
254	3-G	15B11065W01	Guide, Photo
255	4-G	30T15126W01	Wire, PC Sensor(7P)
258	4-D	45A10101W01	Lever, Eject Sol.
259	3-D	49A10131W01	Pulley, Idler
260	4-E	44A10133W01	Gear, Take Up
261	3-E	44A10134W01	Gear, Sun
262	3-E	44B10135W01	Gear, Fix
263	3-E	44B21670W01	Gear, Pause
264	3-F	44A10137W01	Gear, Pause Idler(A)
265	3-D	44A10379W01	Gear, Pause Idler(B)
266	3-E	44A10138W01	Gear, Reverse Idler
267	3-E	44A10139W01	Gear, Motor Idler
268	4-E	44A11062W01	Gear, Reel Idler
269	1-G	42A10380W01	Belt, GR
270	3-A	01V14700W68	Assy., GR Audio P.C. Board
271	3-E	41A30475W01	Spring, Clutch
272	3-F	04B41345P15	Washer, Lock(M1.2)
273	4-D	04B41345P02	Washer, Lock(M1.7)
274	3-H	04B41345P17	Washer, Lock(M1)
275	2-D	04B41345P30	Washer, Lock(M3.1)
276		04B41345P32	Washer, Lock(M3.1)
277	4-E	04B41345P37	Washer, Lock(M2.1)
278	2-A	30T15126W02	Wire, PC Joint 7P
279	2-D	03S44205G78	Screw, Pan(M2x6)
280		03S44205G30	Screw, Pan(M2.6x4)
281	4-D	03S72235F53	Screw, Pan(M2x3.3)
282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
283		03S43997P64	Screw, Pan(M1.7x3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	3-E	41A10385W01	Spring, Cas. Push
286	2-C	41B10386W02	Spring, Sub Head
287	2-B	41A10387W01	Spring, Pinch Roller
288	3-D	43A12719W01	Roller, Pause
289	3-B	01B30863W01	Assy., Pinch Roller
290	2-B	84T25151W01	Head P.C. Board

Symbol No.	IN-dex	Part No.	Description
291	4-E	01T35403W02	Assy., Reel
292	4-E	04B41345P12	Washer, Lock(M1.7)
293	4-D	01A30161W01	Assy., Riv Lever Take Up
294	3-F	04B41345P34	Washer, Lock(M1.2)
295	2-B	26A20537W01	Shield, Plate
296	4-D	41A40910W01	Spring, Clutch
297	4-E	43A41543W01	Washer, Som(M1.2)
298	3-E	47A41458W01	Pin, Take Up
299	3-D	43A40388W01	Spacer, Polyslider
300	2-D	43A41744W01	Lock, Solenoid
			Miscellaneous
501	2-B	88T15971W01	Head
◆ 502	4-E	01V23900W60	Assy., Motor(13.2V-105mA)
○ 502	4-E	01V43400W37	Assy., Motor(13.2V-88mA)
503	3-G	51T15144W01	Sensor, Photo
504	4-G	01T10371W01	R/F Sol. Assy
505	4-F	40T15382W01	SW., Detector (Pack Down)
506	4-G	40T15382W01	SW., Detector (Metal)
507	2-C	40T15222W01	SW., Detector (Pack In)
508	2-D	01T15249W01	Assy., Play Solenoid
509	4-D	01T10369W02	Assy., Eject Solenoid

Notes : ◆ ; For GR75L020 model only ○ ; For GR75L02A model only
Others ; Common

Exploded View (GR-Y Series) (3/4)

- For GR75L02Y/52Y Model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(Rear) B
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--Point of GREASE applid
Ⓐ MOLYKOTE G PASTE
Ⓑ GREASE EM-30L
Ⓒ PG-671

A B C D E F G H

Cassette Deck Assembly Parts List (GR-Y Series) (3/4)

Symbol No.		IN-dex	Part No.	Description
	203	3-C	43A11072W01	Roll, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A31756W01	Spring, Head
	207	2-B	03S40019G03	Screw, F-Locks(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A10681W01	Reflector
	215	3-E	44A30480W01	Gear, Planet
	216		41A10097W02	Spring, Clutch
	217	3-E	04B41345P35	Washer, Lock(M1.7)
	218	3-E	01A30824W01	Assy., Riv Lever Reverse
	219	4-B	07B40283W01	Holder, Cassette
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
	223	5-C	41B10386W03	Spring, GR(Rack)
	224	4-C	43A10121W01	Roller, Eject(A)
	225	4-D	43A10360W01	Roller, Eject(B)
	226		04B41345P11	Washer, Lock(M1.2)
	227	4-D	43A12377W01	Roller, Eject(C)
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
	232	4-A	01A10212W01	Assy., Riv Plate Base
	233	4-C	41B10386W01	Spring, Eject Arm
	234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
	235	3-B	01B30863W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever, Pack In SW.
	237	4-F	44A20314W01	Pinion, Eject
	238	4-E	44A13617W01	Gear, Motor Idler(B)
	239	3-E	01A10201W02	Assy., Riv Lever Pause
	240	2-D	45A40725W01	Lever, Play Sol.
	241		76T10374W01	Chip
	242	1-G	04S40075G05	Washer, Polyslider (M2.1)
	243	1-G	01A10368W01	Assy., Flywheel
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
	246	3-F	44A10145W01	Gear, Eject
☆	247	2-B	01V23700W03	Assy., GR Control P.C. Board

Notes:☆ ; For GR75L02Y model only ◇ ; For GR75L52Y model only
Others ; Common

Note : The parts without parts list are not supplied.

Symbol No.		IN-dex	Part No.	Description
◇	247		01V44200W74	Assy., GR Control P.C. Board
	248	3-G	43A41656W01	Spacer, UHMW
	249	3-F	44A11063W01	Gear, Bottom(A)
	250	3-F	44A11064W01	Gear, Bottom(B)
	251	3-G	34A11122W02	Washer, GR
	252	3-H	01A10210W02	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol.
	259	3-D	49A10131W01	Pulley, Idler
	260	4-E	44A10133W01	Gear, Take Up
	261	3-E	44A10134W01	Gear, Sun
	262	3-E	44B10135W01	Gear, Fix
	263	3-E	44B21670W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler(A)
	265	3-D	44A10379W01	Gear, Pause Idler(B)
	266	3-E	44A10138W01	Gear, Reverse Idler
	267	3-E	44A10139W01	Gear, Motor Idler
	268	4-E	44A11062W01	Gear, Reel Idler
	269	1-G	42A10380W01	Belt, GR
	270	3-A	01V33300W03	Assy., GR Audio P.C. Board
	271	3-E	41A30475W01	Spring, Clutch
	272	3-F	04B41345P15	Washer, Lock(M1.2)
	273		04B41345P02	Washer, Lock(M1.7)
	274	3-H	04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276	3-B	04B41345P32	Washer, Lock(M3.1)
	277	4-E	04B41345P37	Washer, Lock(M2.1)
	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F53	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cas. Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause
	289	3-B	01B30863W01	Assy., Pinch Roller
	290	2-B	84T35271W01	Head P.C. Board

Symbol No.		IN-dex	Part No.	Description
	291	4-E	01T35403W02	Assy., Reel
	292	4-E	04B41345P12	Washer, Lock(M1.7)
	293	4-D	01A30161W01	Assy., Riv Lever Take Up
	294	3-F	04B41345P34	Washer, Lock(M1.2)
	295	2-B	26A20537W01	Shield, Plate
	296	4-D	41A40910W01	Spring, Clutch
	297	4-E	43A41543W01	Washer, Som(M1.2)
	298	3-E	47A41458W01	Pin, Take Up
	299	3-C	43A40388W01	Spacer, Polyslider
	300	2-D	43A41744W01	Lock, Solenoid
	301	2-B	41A41416W01	Spring, Head

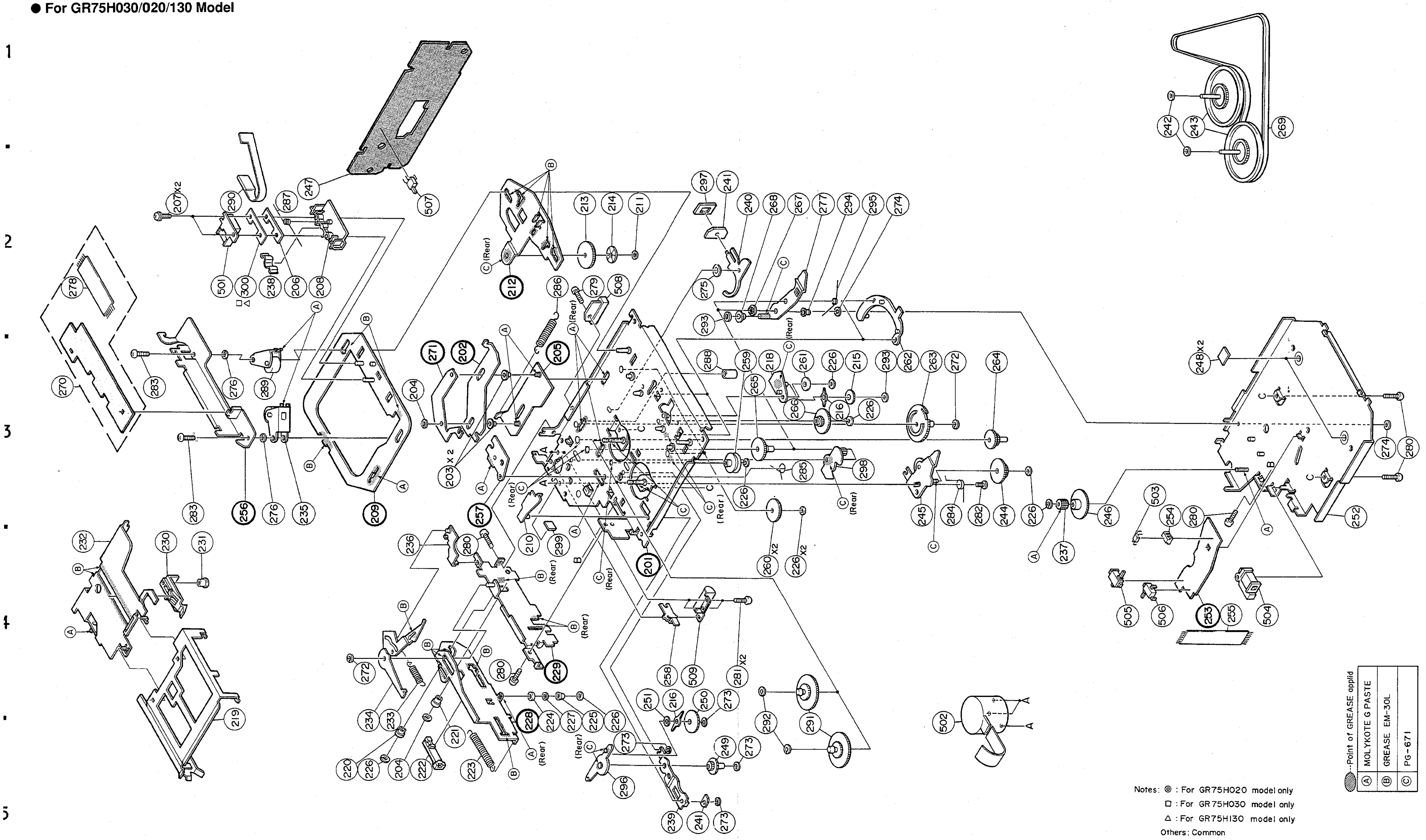
Miscellaneous

Symbol No.		IN-dex	Part No.	Description
	501	2-B	88T15971W01	Head
☆	502	4-E	01V23900W60	Assy., Motor(13.2V-105mA)
◇	502	4-E	01V44200W73	Assy., Motor(13.2V-80mA)
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy
	505	4-F	40T15382W01	SW., Detector (Pack Down)
	506	4-G	40T15382W01	SW., Detector (Metal)
	507	2-C	40T15222W01	SW., Detector (Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Notes:☆ ; For GR75L02Y model only ◇ ; For GR75L52Y model only
Others ; Common

Exploded View (GR75H Series) (4/4)

- **For GR75H030/020/130 Model**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207 X2
290
287
501
300
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239
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A
B
C

Notes: ◎ : For GR75H020 model only
□ : For GR75H030 model only
△ : For GR75H130 model only
Others: Common

▨ ··· Point of GREASE applid	
Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR75H Series) (4/4)

Symbol No.		IN-dex	Part No.	Description
	203	3-C	43A31453W01	Roller, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A31756W01	Spring, Head
	207	2-A	03A38021W01	Screw, Flange(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A30462W01	Assy., Riv Lever R/F Sol
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A10681W01	Reflector
	215	3-E	44A30480W01	Gear, Planet
	216		41A30475W01	Spring, Clutch
	218	3-E	01A30824W01	Assy., Riv Lever Reverse
◎	219	4-B	07B40283W01	Holder, Cassette
□	219	4-B	07B40283W01	Holder, Cassette
△	219	4-B	07B40012W01	Holder, Cassette
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
◎	223	5-C	41B10386W03	Spring, GR(Rack)
□	223	5-C	41B10386W03	Spring, GR(Rack)
△	223	5-C	41B10386W04	Spring, GR(Rack)
	224	5-C	43A10121W01	Roller, Eject A
	225	5-D	43A10360W01	Roller, Eject B
	226		04B41345P11	Washer, Lock(M1.2)
	227	5-D	43A12377W01	Roller, Eject C
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
◎	232	4-A	01A10212W01	Assy., Riv Plate Base
□	232	4-A	01A10212W01	Assy., Riv Plate Base
△	232	4-A	01A40024W01	Assy., Riv Plate Base
◎	233	5-C	41B10386W01	Spring, Eject Arm
□	233	5-C	41B10386W01	Spring, Eject Arm
△	233	5-C	41B63283F11	Spring
◎	234	5-C	01A30883W01	Assy., Riv Eject Arm B
□	234	5-C	01A30883W01	Assy., Riv Eject Arm B
△	234	5-C	01A40021W01	Assy., Riv Eject Arm D
	235	3-B	01B30863W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever Pack In SW
	237	4-F	44A20314W01	Pinion, Eject
	238	2-B	26A20537W01	Shield, plate
	239	5-D	01A40881W01	Assy., Riv RF Link
	240	2-D	45A40725W01	Lever, Play Sol.
	241		76T10374W01	Chip
	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
	243	1-G	01A30488W01	Assy., Flywheel

Notes:◎ ; For GR75H020 model only □ ; For GR75H030 model only
△ ; For GR75H130 model only Others ; Common

Note : The parts without parts list are not supplied.

Symbol No.		IN-dex	Part No.	Description
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W02	Assy., Riv Lever Clutch A
	246	3-F	44A10145W01	Gear, Eject
	247	2-B	01V33500W45	Assy., GR Control P.C. Board
	248	3-G	43A41656W01	Spacer, UHMW
	249	5-D	44A30481W01	Gear, RF Idler
	250	4-D	44A30483W01	Gear, RF
	251	4-D	04S40075G58	Washer, Polyslider(M2.1)
	252	3-H	01A30463W01	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol
	259	3-D	49A30476W01	Pulley, Idler
	260	4-E	44A30482W01	Gear, Take Up
	261	3-E	44A30478W01	Gear, Sun
	262	3-E	44B10135W01	Gear, Fix
	263	3-E	44B30484W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler A
	265	3-E	44A30486W01	Gear, Pause Idler B
	266	3-E	44A30479W01	Gear, Reverse Idler
	267	2-E	44A30485W01	Gear, Motor Idler
	268	2-E	44A30487W01	Gear, Motor Clutch
	269	1-G	42A31850W01	Belt, GR
◎	270	3-A	01V43400W38	Assy., GR Audio P.C. Board
□	270	3-A	01V33300W03	Assy., GR Audio P.C. Board
△	270	3-A	01V33300W03	Assy., GR Audio P.C. Board
	272	3-F	04B41345P15	Washer, Lock(M1.2)
	273		04B41345P02	Washer, Lock(M1.7)
	274	3-H	04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276	3-B	04B41345P32	Washer, Lock(M3.1)
	277	2-E	01A30464W01	Assy., Riv Play Clutch
	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F53	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch(M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cas Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause
	289	3-B	01B30863W01	Assy., Pinch Roller
◎	290	2-B	84T25151W01	Head P.C. Board

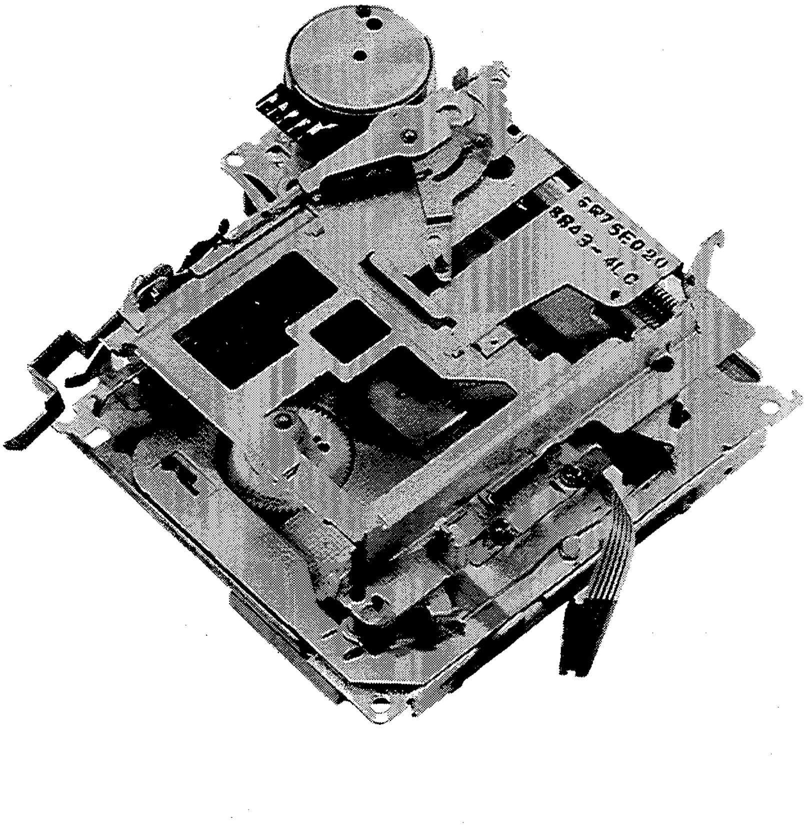
Symbol	No.	IN-dex	Part No.	Description
□	290	2-B	84T35271W01	Head P.C. Board
△	290	2-B	84T35271W01	Head P.C. Board
	291	5-E	01T35403W01	Assy., Reel
	292	5-E	04B41345P12	Washer, Lock(M1.7)
	293	2-D	04B41345P35	Washer, Lock(M1.7)
	294	2-E	43A30827W01	Spacer, Motor Idler
	295	2-E	41A30490W01	Spring, Play Clutch
	296	5-D	01A40882W01	Assy., Riv Lever RF
	297	2-D	34A48030W01	Washer, Solenoid
	298	3-E	01A10201W02	Assy, Riv Lever Pause
	299	4-C	43A40388W01	Spacer, Polyslider
□	300	2-B	41A41416W01	Spring, Head
△	300	2-B	41A41416W01	Spring, Head
				Miscellaneous
◎	501	2-B	88T15971W01	Head
□	501	2-B	88T35406W01	Head
△	501	2-B	88T35406W01	Head
	502	5-F	01V41100W72	Assy., Motor(11.5v-85mA)
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy.
	505	4-F	40T15382W01	SW., Detector (Pack Down)
	506	4-G	40T15382W01	SW., Detector(Metal)
	507	2-C	40T15222W01	SW., Detector (Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Notes:◎ ; For GR75H020 model only □ ; For GR75H030 model only
△ ; For GR75H130 model only Others ; Common

ALPINE SERVICE MANUAL

Cassette Deck Mechanism

ADDENDUM & REVISED (III)


6R75E020
8843-4LC

GR/GR-Y SERIES

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List of Usable Lock Washers

	SIZE	PARTS NO.	QUANTITY		
			GR75E Series	GR75L Series	GR-Y Series
1	(M1.2 x 3.5 x 0.25)	04B41345P01	8	7	6
2	(M1.7 x 3.5 x 0.25)	04B41345P02	1	1	2
3	(M2.1 x 5 x 0.25)	04B41345P06	1	1	0
4	(M1.2 x 2.5 x 0.25)	04B41345P11	7	7	8
5	(M1.7 x 3.5 x 0.35)	04B41345P12	2	2	2
6	(M1.2 x 3.5 x 0.35)	04B41345P15	1	1	1
7	(M1 x 2.5 x 0.25)	04B41345P17	1	1	1
8	(M2.6 x 5 x 0.25)	04B41345P29	1	1	0
9	(M3.1 x 8 x 0.05)	04B41345P30	1	1	1
10	(M1.7 x 3 x 0.25)	04B41345P31	1	1	1
11	(M3.1 x 5 x 0.35)	04B41345P32	2	2	2
12	(M1.2 x 2.5 x 0.3)	04B41345P34	1	1	0
13	(M2.1 x 4 x 0.25)	04B41345P37	0	0	1
14	(M2.6 x 4.7 x 0.25)	04B41345P38	0	0	1

List of Usable Oil

1) Molykote E paste
2) Grease EM-30L
3) Grease FLOIL 425A

List of Usable Jigs

1) GR bottom gear jig (Part No. 44A20788W01)
2) Head height adjustment gauge
   AI-500 (Part No. AI-500)

Memo

Disassembly, Assembly and Replacement of Functional Parts

1. Disassembly and Assembly of Bottom Cover

(1) Turn the mechanism around as shown in Figure 1.
(2) Remove M1 lock washer ① as shown in Figure 1.
(3) Remove three screws ② as shown in Figure 1.
(4) Lift the bottom cover slowly from the position Ⓐ-1, pull the hooks out of the holes in the chassis, and remove the bottom cover as shown in Figure 1.
(5) When remounting the bottom cover, first turn the front of the mechanism up as shown in Figure 2.
(6) Slide the slider in the direction Ⓐ-2 as shown in Figure 2.
(7) Push down the cassette holder in the direction Ⓐ-3 as shown in Figure 2.
(8) Pull the door pin in the direction Ⓐ-4 so that the mechanism is locked in as shown in Figure 2.
(9) Turn the mechanism around as shown in Figure 3.
(10) Pull the automatic metal lever in the direction Ⓐ-5 and the RF solenoid chip in the direction Ⓐ-6 as shown in Figure 3.
(11) Insert the hooks of the bottom cover into the chassis in the direction Ⓐ-7, and then join the part Ⓐ-8 of the bottom cover to the chassis slowly, making sure that the 3 points indicated with the straight lines in the Figure 3 are fitted properly.
If there are troubles in mounting the bottom cover, do not apply force but remove the bottom cover once again and check the positions of the individual parts. (Refer to Figure 3.)
(12) Since the hooks marked Ⓐ-8 will be lifted slightly as shown in Figure 4, insert the jig through the hole Ⓐ-9, and fix it turning the jig slightly in the direction Ⓐ-11.
Instead of operation (12), turn the gear nose slowly with a precision screwdriver etc., taking care not to damage it.
After 2 to 3 turns, it will click into place.
(Refer to Figures 4 and 5.)
(13) Fix the screws and the lock washer that have been removed.

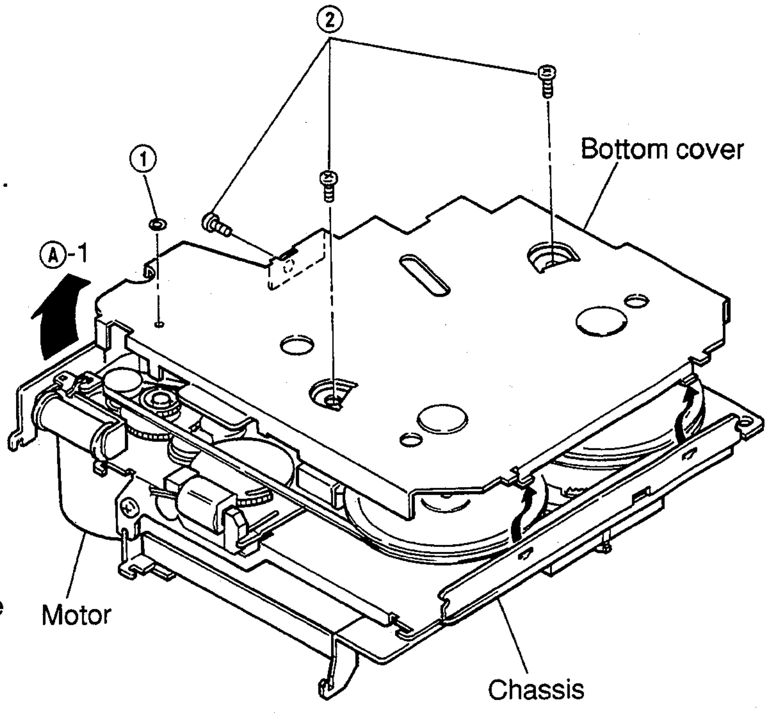


Figure 1

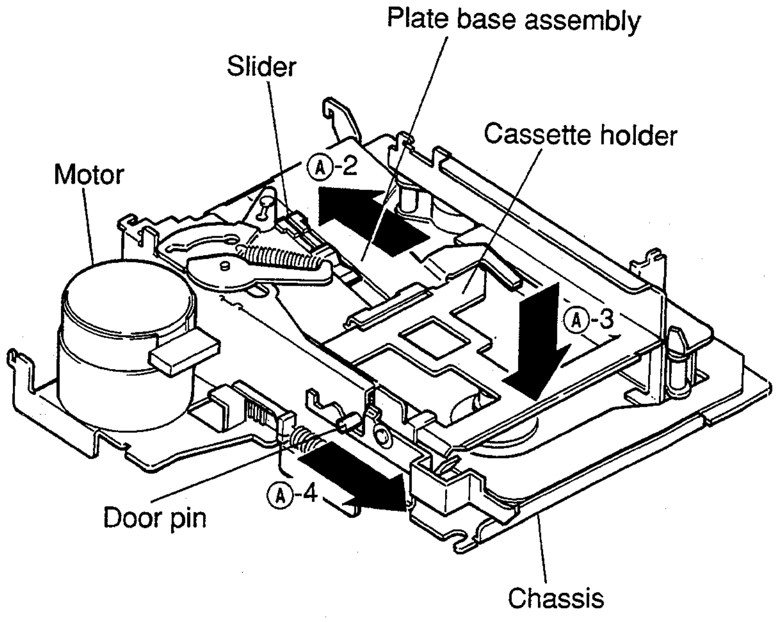


Figure 2

(14) Insert the jig into the hole Ⓐ-9 as shown in Figure and rotate the eject solenoid counterclockwise about 20 times, pulling it in the direction Ⓐ-10 with the finger.
Then the eject operation is completed.
Instead of operation (14), the eject operation can be performed by mounting the mechanism to the product. (Refer to Figures 4 and 5.)

Note: Do not reuse the used lock washers for mounting.
When turning the mechanism, be careful not to drop the gear and the flywheel.
Fasten the three screws with a fastening torque of 6 kg.cm.

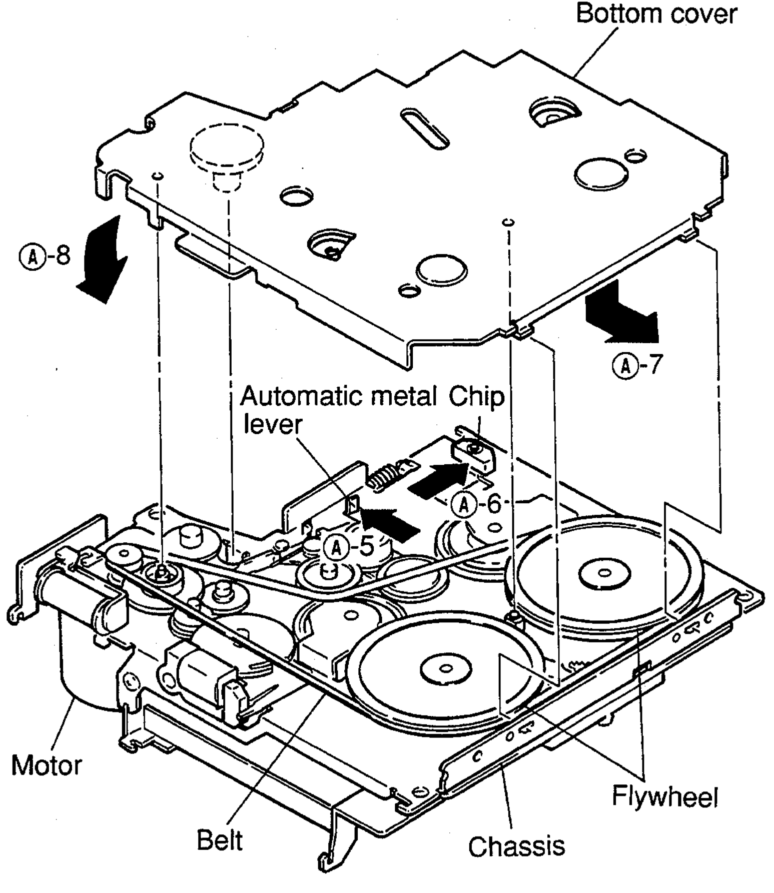


Figure 3

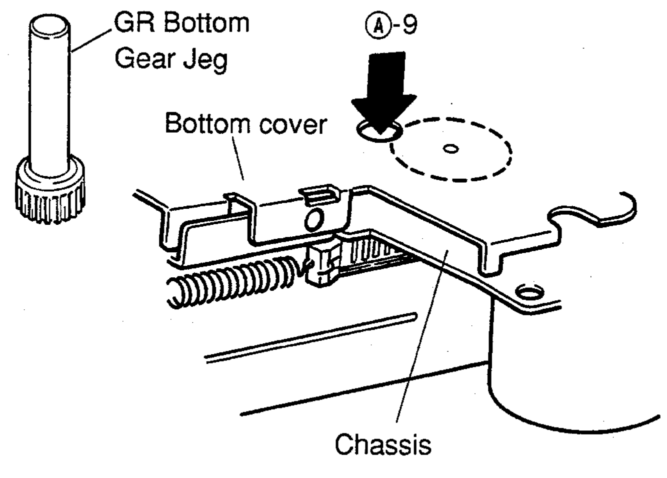


Figure 4

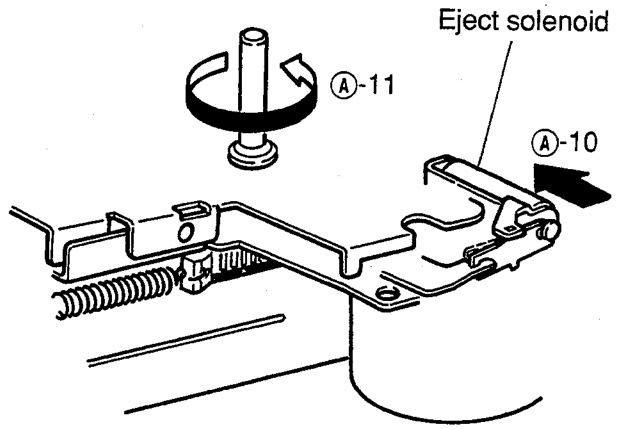


Figure 5

2. Replacement of the bottom cover mounting parts

a. Replacement of the eject gear

(1) Remove M1.2 lock washer ③ as shown in Figure 6.
(2) Pull the eject pinion out of the eject gear and remove the eject gear as shown in Figure 6.
(3) Apply the molykote E paste to the section Ⓑ-1, and mount the eject gear following the removal steps in the reverse order. After replacement is finished, make sure that the gear rotates smoothly. (Refer to Figure 6.)

Note: Do not reuse the used lock washers for remounting.
Take care to avoid damage by piercing and tearing.

b. Replacement of the RF solenoid

(1) Remove two solders ④ and remove the RF solenoid from the bottom cover by pulling it up as shown in Figure 6.
(2) Replace the solenoid with a new one, and remount it following the removal steps in the reverse order as shown in Figure 6.

Note: When removing solder ④, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged.

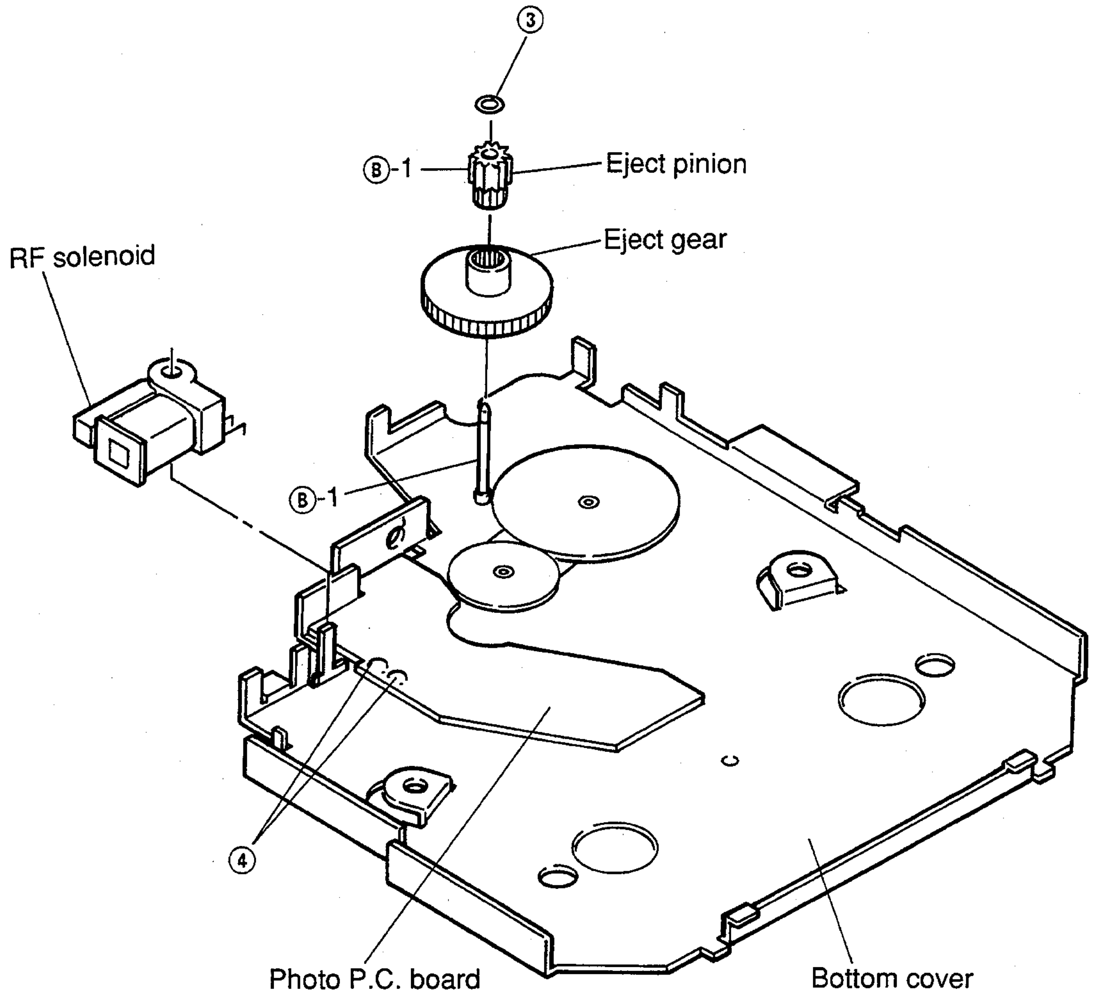


Figure 6

c. Replacement of the photo sensor

(1) Remove four solders ⑤ as shown in Figure 7.
(2) Remove the photo guide together with the photo sensor from the photo P.C. board as shown in Figure 7.
(3) Insert the new photo sensor into the photo guide, and bend the legs of the photo sensor in the direction marked Ⓑ-2 as shown in Figure 7.
(4) Insert the photo guide into the P.C. board and solder the legs so that the photo sensor is set as indicated by ⬚ in Figure 7.

Note: When using the soldering iron, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged. Also take care that the photo guide is properly fixed and straight.

d. Replacement of the detector switch (Automatic metal pack-in)

(1) Remove 4 solders ⑥ with which the switch is fixed as shown in Figure 7.
(2) Prepare the terminals of the switch of the new solder as shown in Figure 8.
(3) After that, insert the switch into the photo P.C. board, and solder the terminals.

Note: When using the soldering iron, refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Also take care that the switch guide is properly fixed and straight.

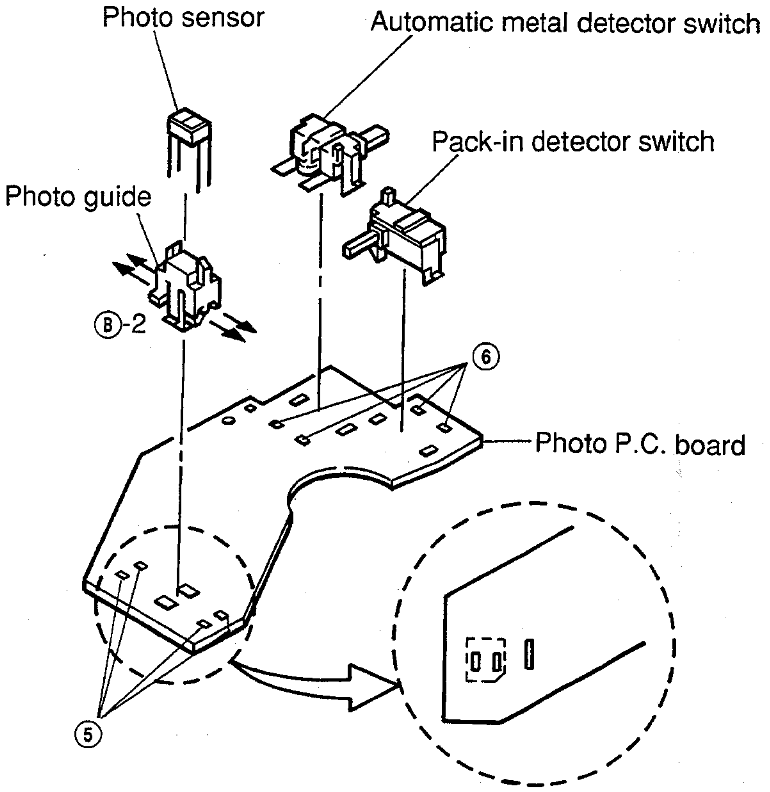


Figure 7

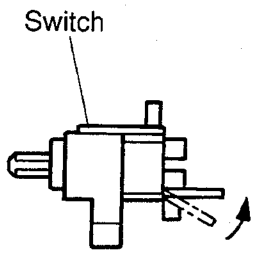


Figure 8

3. Replacement of the mounting parts on the rear of the main chassis

a. Replacement of the belt

(1) After removing the bottom cover, remove the belt.

(2) Clean the new belt with absolute alcohol, and fix it as shown in Figure 9.

Note: When fixing the belt, make sure that it is not twisted or dirty. When removing the belt, do not turn up the front of the chassis.

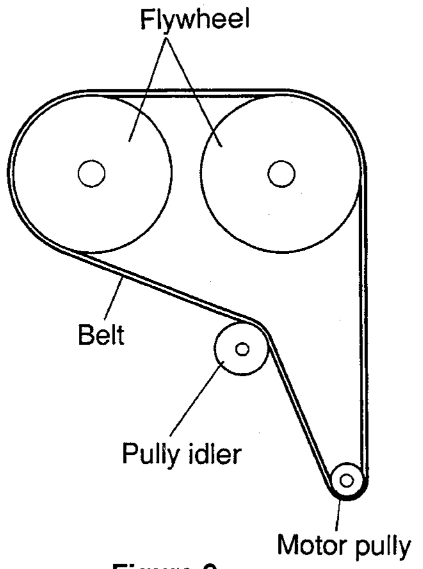

Flywheel
Belt
Pully idler
Motor pully

Figure 9

b. Replacement of the motor

(1) After removing the belt, remove spring ⑦ as shown in Figure 10.

(2) Remove solder ⑧-1, and remove the parallel wire (5P) from the control P.C. board as shown in Figure 11.

(3) Remove two screws ⑨ and ⑩, and remove the motor, taking care not to damage the motor idler gear. (Refer to Figure 10.)

(4) Mount the new motor following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Since the parallel wire is very easily damaged, handle it with care.
Fasten the two screws with a fastening torque of 3 kg.cm.

*When inserting the clutch spring, be careful of the inserting direction as shown in the Figure.

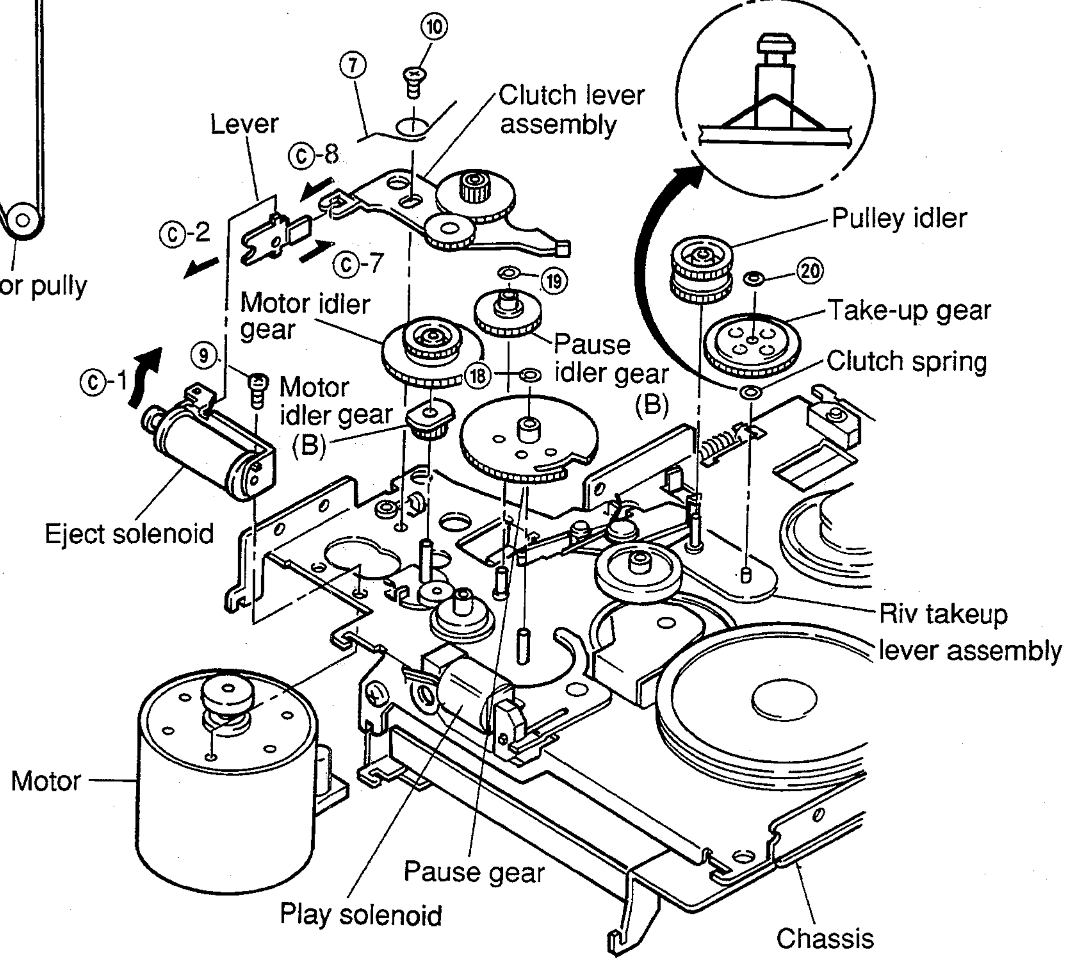

⑩
⑦
Clutch lever assembly
Lever
ⓒ-8
ⓒ-2
ⓒ-7
Pulley idler
⑳
⑲
Motor idler gear
Take-up gear
Pause idler gear (B)
⑱
Clutch spring
ⓒ-1
⑨
Motor idler gear (B)
Eject solenoid
Riv takeup lever assembly
Motor
Pause gear
Play solenoid
Chassis

Figure 10

c. Replacement of the flywheels

(1) After removing the belt, pull out the two flywheels. Take care not to loose the polyslider washer ⑪ located between the flywheel and the chassis. (Refer to Figure 12.)

(2) Fix the polyslider washer to the new flywheel and mount the flywheel to the chassis.

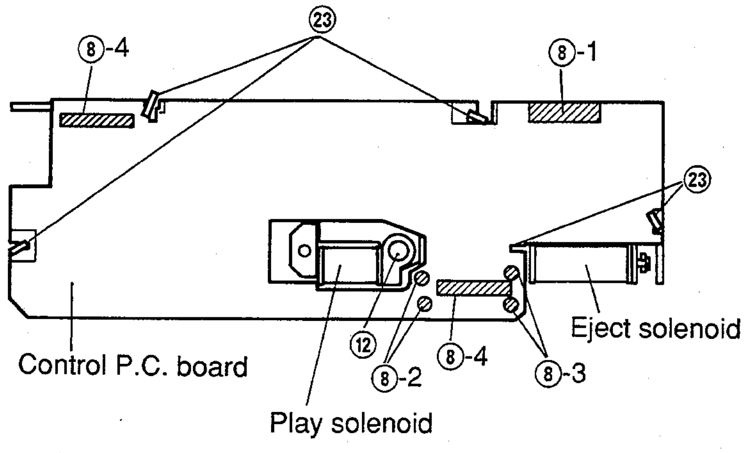
d. Replacement of the play solenoid

(1) Remove the two solders ⑧-2 as shown in Figure 11.

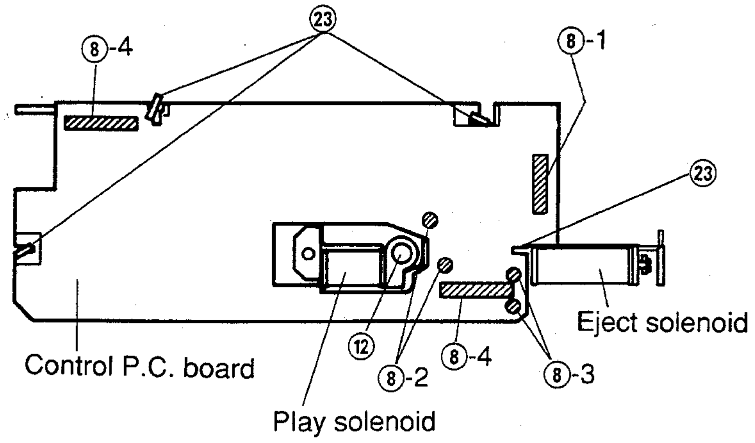
(2) Remove one screw ⑫ and remove the solenoid as shown in Figure 11.

(3) Mount the new solenoid following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 2.3 kg.cm.


⑧-4
㉓
⑧-1
㉓
Eject solenoid
Control P.C. board
⑫
⑧-2
⑧-4
⑧-3
Play solenoid

[For GR75E020, GR75E010, GR75E01A, GR75E01C models]


⑧-4
㉓
⑧-1
㉓
Eject solenoid
Control P.C. board
⑫
⑧-2
⑧-4
⑧-3
Play solenoid

[For GR75L020, GR75L010 models]

Figure 11

e. Replacement of the eject solenoid

(1) Remove two solders ⑧-3. Take care not to loose the tube that protects the wire. (Refer to Figure 11.)

(2) Remove screw ⑨ and remove the play solenoid as shown in Figure 10.

(3) Align position ⓒ-1 of the new solenoid with position ⓒ-2 of the lever and fasten the screw as shown in Figure 10.

(4) Lead the wire through the tube and solder it.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 3 kg.cm. As the solder wires are not insulated, do not let them cross each other.

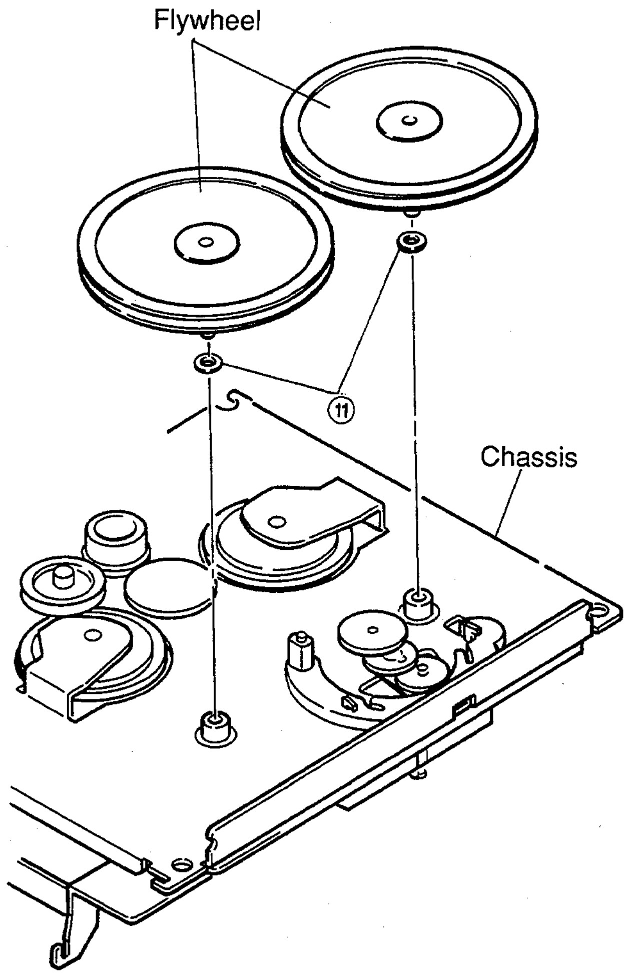

Flywheel
⑪
Chassis

Figure 12

f. Replacement of gears

(f-1) Replacement of the reverse idler gear

(1) Remove M1.2 lock washer ⑬, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.
(2) Remount following the removal steps in the reverse order.

(f-2) Replacement of the sun gear

(1) Remove M1.2 lock washer ⑭, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.
(2) Mount it, following the removal steps in the reverse order.

(f-3) Replacement of the fixing gear

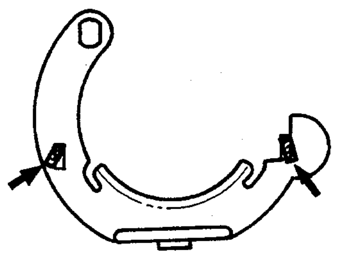
(1) Adjust the two mounting claws for the fix gear on the chassis ⑮ and remove the section ⓒ-3 of the gear by pulling it up in the direction of the arrow shown in Figure 13.
(2) Insert the section ⓒ-4 of the new gear into the chassis, and mount it following the removal steps in the reverse order as shown in Figure 13.

(f-4) Replacement of the reverse lever assembly and planet gear

(1) Remove both the fixing gear and the sun gear and remove the reverse lever assembly as shown in Figure 13.
(2) Remove M1.7 lock washer ⑯ and remove the planet gear as shown in Figure 14.
(3) Mount the new planet gear and reverse lever following the removal steps in the reverse order.

Notes on f-1 through f-4:
After mounting all parts, check if the reverse lever moves in the directions marked ⓒ-5 when the reverse gear is turned clockwise and counterclockwise.

*After mounting the fixing gear, bend the claws ⑮ into the form of as shown in the Figure.



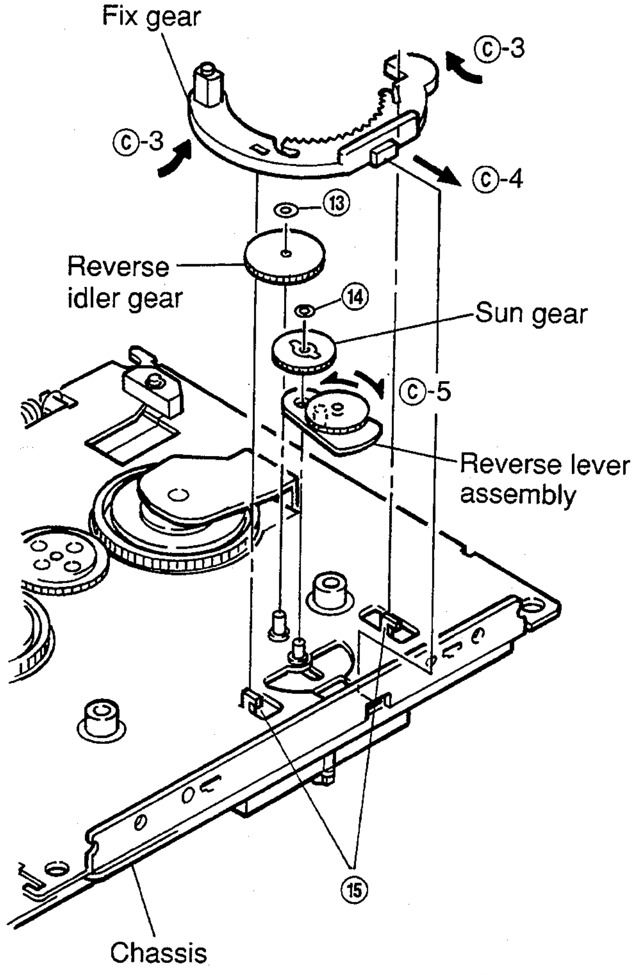


Figure 13

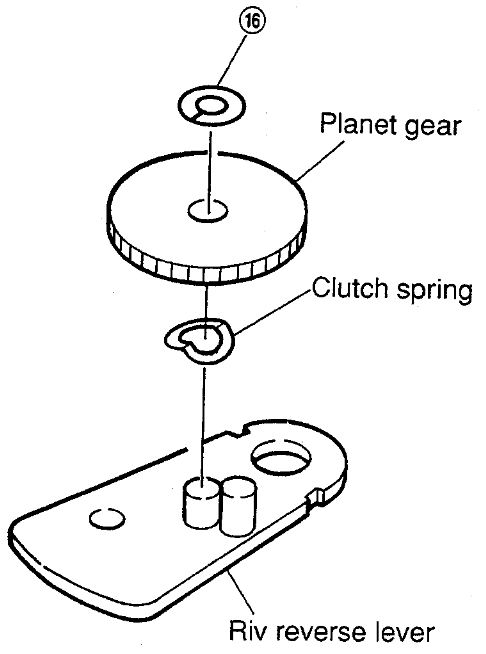
(f-5) Replacement of the clutch lever assembly and eject idler gear

(1) After removing the motor, remove the motor idler gear and the motor idler gear (B) and remove the clutch lever assembly as shown in Figure 10.
(2) Remove M1.2 lock washer ⑰ and remove the eject idler gear as shown in Figure 15.
(3) Mount the new gears and clutch lever following the removal steps in the reverse order.

Note: When mounting the gears to the lever, apply grease (FLOIL 425A) to the position ⓒ-6 as shown in Figure 15. Align the position ⓒ-7 with the position ⓒ-8 and mount the clutch lever as shown in Figures 10 and 15.

(f-6) Replacement of the pause gear

(1) Remove M1.2 lock washer ⑱ and remove the pause gear pulling it up from the stud of the chassis as shown in Figure 10.
(2) Mount the new gear following the removal steps in the reverse order.



[Disassembly Reverse Lever Assembly]

Figure 14

(f-7) Replacement of the pause idler gear (B)

(1) After removing the motor and the motor idler gear, remove M1.2 lock washer ⑲ and remove the gear by pulling it up from the stud of the chassis as shown in Figure 10.
(2) Mount the new gear by following the removal steps in the reverse order.

(f-8) Replacement of the take-up gear

(1) After removing the belt and the pulley idler gear, remove M1.2 lock washer ⑳ by pulling it up from the stud of the riv take-up lever assembly as shown in Figure 10.
(2) Remount the take-up gear following the removal steps in the reverse order.

Notes on f:
Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

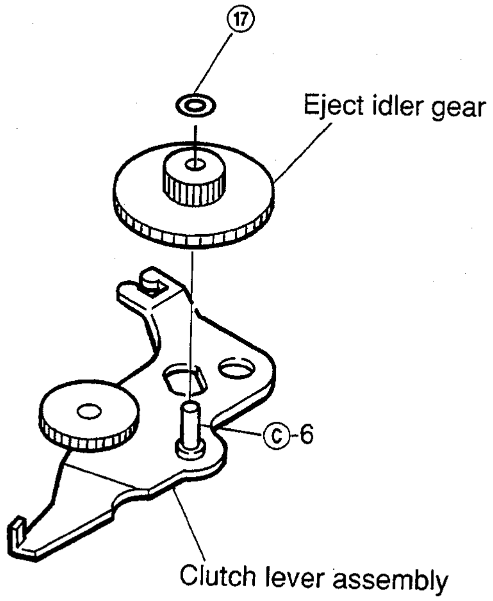


Figure 15

4. Replacement of the parts mounted on the front of the chassis

a. Replacement of the audio P.C. board

(1) Remove two solders ㉑ and remove the parallel wire (7P) and the head P.C. board as shown in Figure 16.

(2) Adjust the two claws ㉒ to the rectangular holes on the P.C. board and remove the P.C. board as shown in Figure 16.

(3) After replacement, mount the new P.C. board following the removal steps in the reverse order.

Note: The head P.C. board and the parallel wire are easily damaged. Handle them with care. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board.

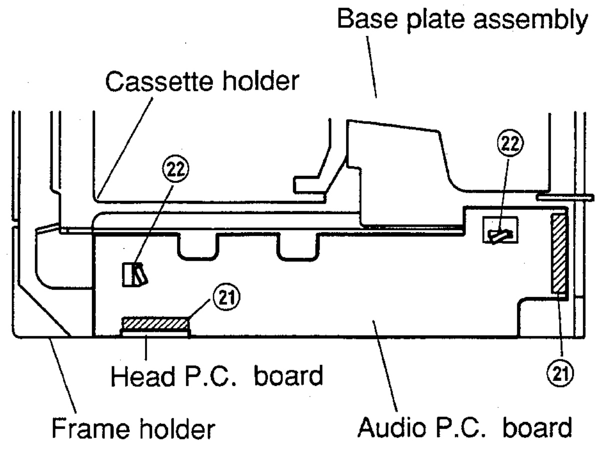


Figure 16

b. Replacement of the control P.C. board

(1) Remove seven solders ⑧ and remove the three parallel wires and the wires of the eject solenoid and of the play solenoid as shown in Figure 11.

(2) Remove five claws ㉓ and remove the P.C. board as shown in Figure 11. [For GR75E020, GR75E010, GR75E01A, GR75E01C models]
Remove four claws ㉓ and remove the P.C. board as shown in Figure 11.
[For GR75L020, GR75L010 models]

(3) After replacing the old P.C. board with a new one, mount it following the removal steps in the reverse order.

Note: As mentioned in Item 4-a, handle the parallel wires carefully, and be sure that the temperature of the soldering iron and the soldering time are proper. As the wires of the eject solenoid are not insulated, do not let them cross each other.

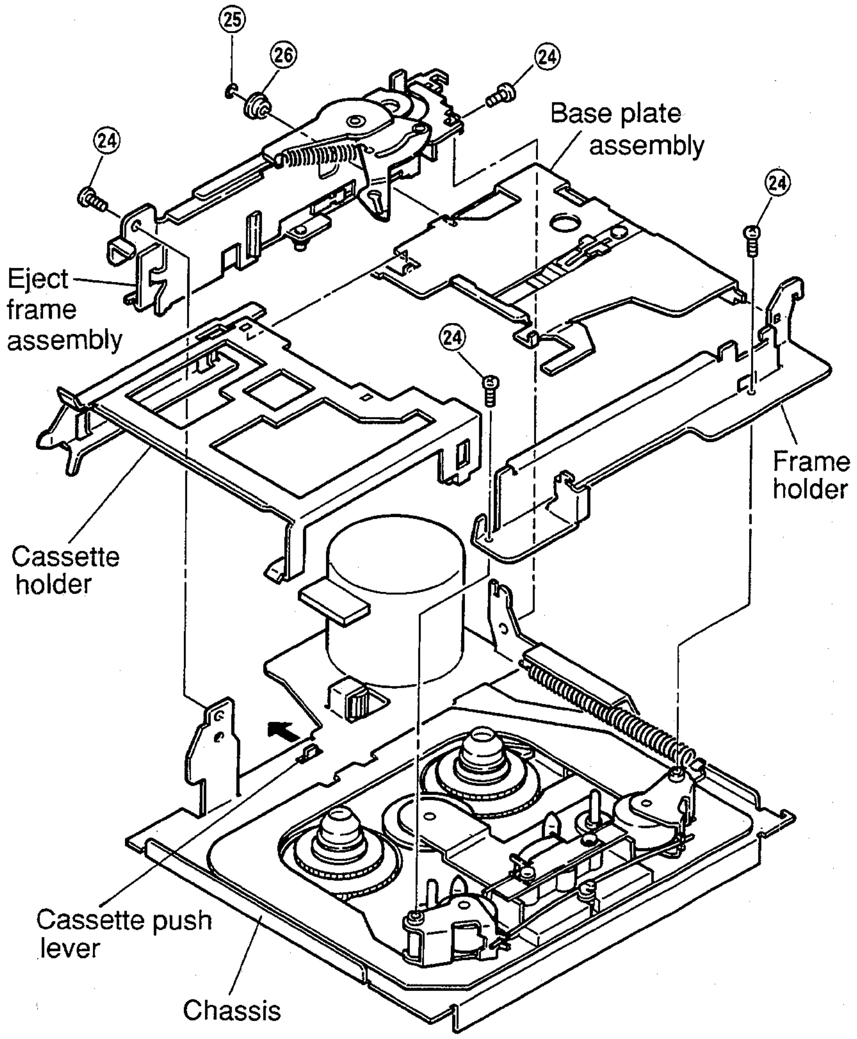


Figure 17

c. Disassembly and assembly of the cassette holder

(1) Remove four screws ㉔ and remove the eject frame assembly and the frame holder as shown in Figure 17.

(2) Remove M1.2 lock washer ㉕ and plate base roller ㉖ and remove the cassette holder and the base plate assembly as shown in Figure 17.

(3) Remount them following the removal steps in the reverse order.

Notes: 1. When mounting the cassette holder and the base plate, insert the slider shaft into the eject arm and fix them turning the slider shaft in the direction indicated by the arrow in the figure. Make sure that the cassette holder and the base plate are in the cassette-in mode during this operation. (Refer to Figure 18).

2. When mounting the eject frame assembly, push the cassette push lever in the direction indicated by the arrow in the Figure 17.

3. When mounting the base plate assembly and the eject frame assembly, or when mounting the eject frame assembly to the chassis, do not apply excessive force to avoid deformations of the eject arm and the frame.

4. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

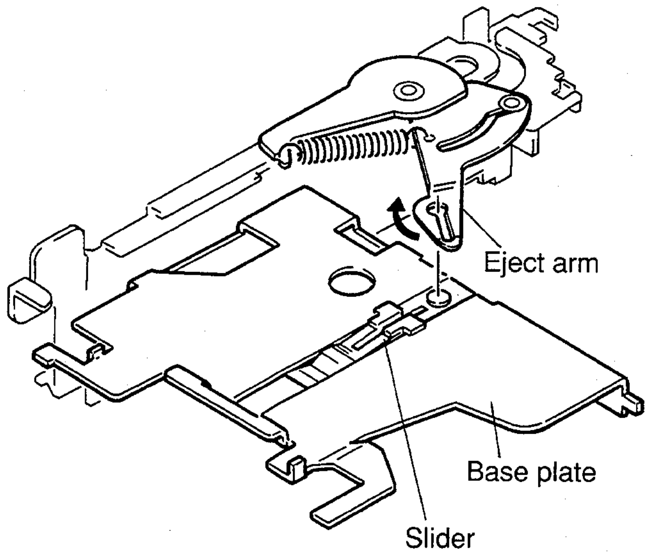


Figure 18

d. Replacement of the reels

(1) Remove M1.7 two lock washers ㉖ (Refer to figure 19).

(2) Move the select lever in the direction marked Ⓓ-1 in the Figure and remove the reel by gripping the reel gear as shown in Figure 19.

(3) After replacement, mount the new reels following the removal steps in the reverse order.

(4) After mounting, check the tape speed and the wow and flutter with test tape MTT-111.

Note: Since the reel is easily loosened if the cap is gripped, always handle it gripping the gear. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

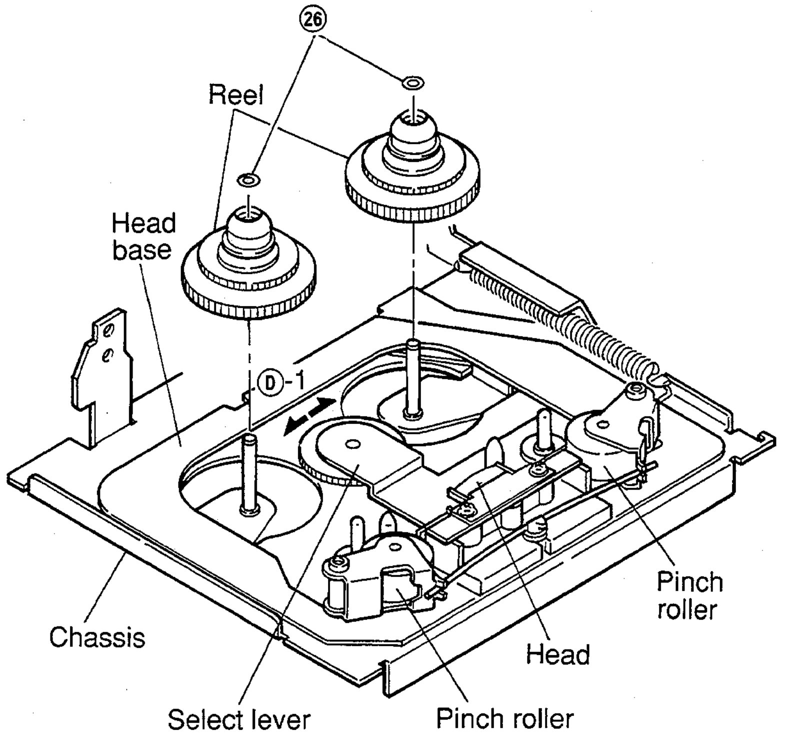


Figure 19

Supl

e. Replacement of the pinch rollers
- (1) Remove pinch roller spring ㉗ as shown in Figure 20.
- (2) Remove M3.1 two lock washers ㉘ and remove the pinch roller as shown in Figure 20.
- (3) Mount the pinch rollers following the removal steps in the reverse order.
  Apply insulation coating to the position Ⓓ-2 of the pinch roller as shown in Figure 20.

Note: Make sure that the pinch rollers are thoroughly fixed and that they are not deformed. Do not reuse used lock washers. Take care to avoid damage by piercing and tearing.

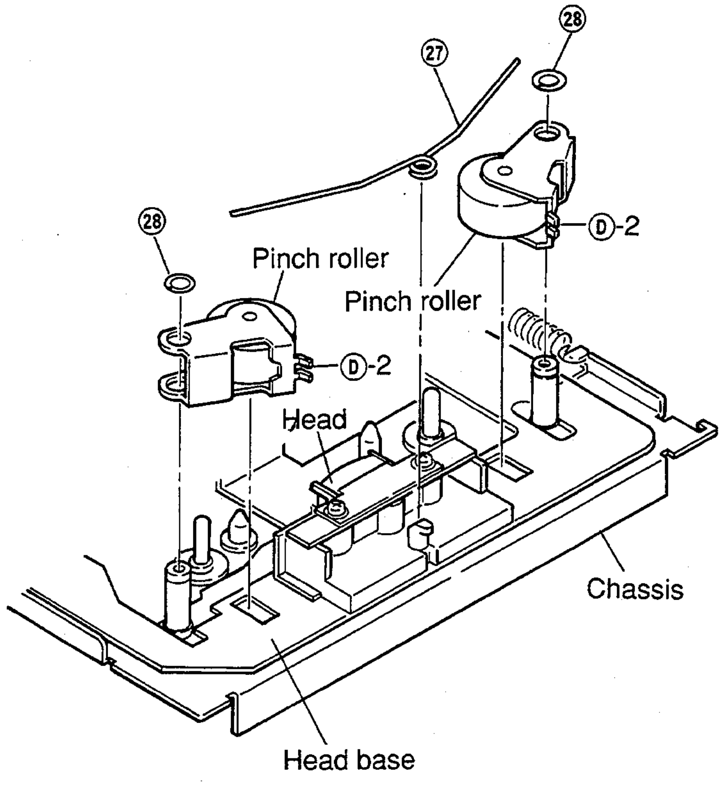

㉘
㉗
Ⓓ-2
㉘
Pinch roller
Pinch roller
Ⓓ-2
Head
Chassis
Head base

Figure 20

f. Replacement of the head
- (1) After removing the pinch roller spring, remove two screws ㉙ as shown in Figure 21.
- (2) Remove solder ㉚ and remove the head from the head P.C. board as shown in Figure 22.
- (3) After replacement, mount the new head following the removal steps in the reverse order.

Notes: 1. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board. Make sure that the head P.C. board is not lifted.
2. Fasten the two screws with a fastening torque of 2.3 kg.cm. Note that the tension of the head spring can be decreased if the screws are fastened too strongly.

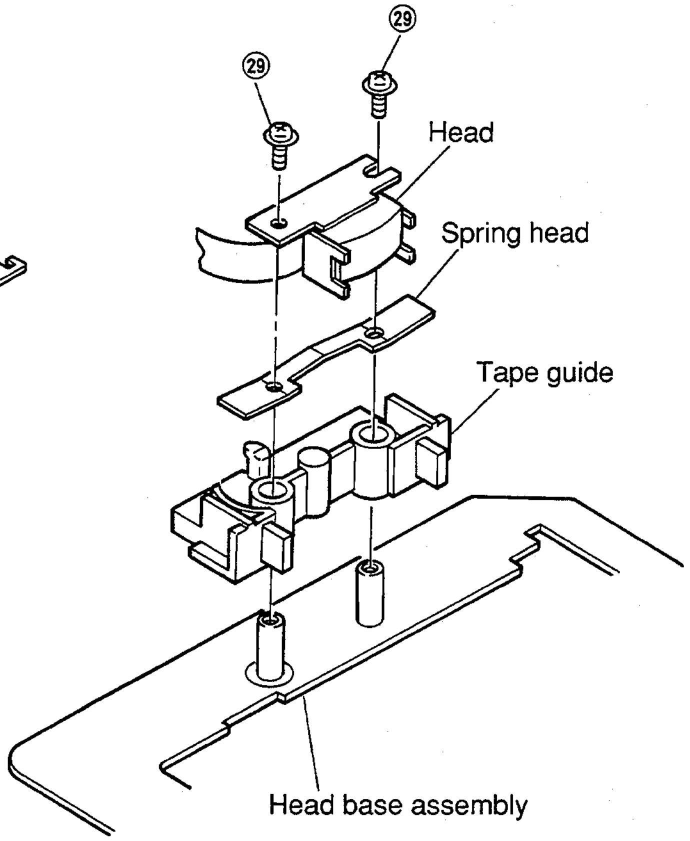

㉙
㉙
Head
Spring head
Tape guide
Head base assembly

Figure 21

(4) Adjust the height of the head as shown in Figures 23, 24 and 25.
① Place the height adjustment gauge (AI-500) on the head base, and adjust the height so that the check bar fits in the tape head guide smoothly.
② When the check bar touches the top (or bottom) of the tape guide, insert a spacer (t 0.1 mm or polislider washer t 0.13 mm).
If necessary, remove the spacer.

Note: If you do not have a height gauge like described in (4)-①, run the tape at normal speed and adjust the height of the head and the tape head guide so that the tape does not curl.

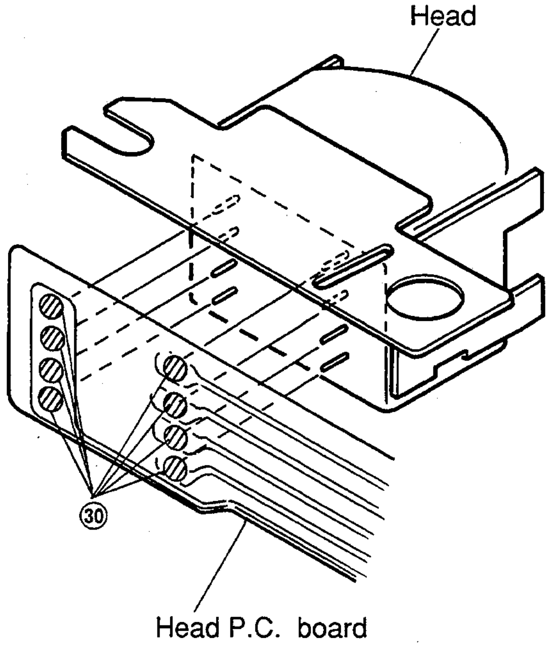

Head
㉚
Head P.C. board

Figure 22

(5) After having assembled the complete mechanism, adjust the angle of the head with test tape MTT-113C. (Refer to chapter "Adjustment of the head angle".) After the adjustment, apply the screw lock and fix the screws.

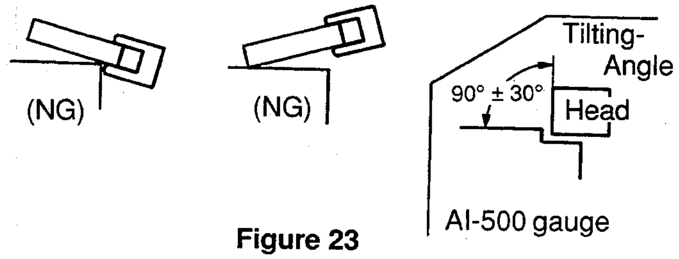

(NG)
(NG)
Tilting-Angle
90° ± 30°
Head
AI-500 gauge

Figure 23

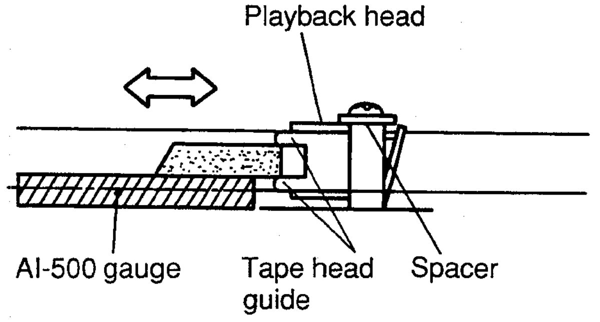
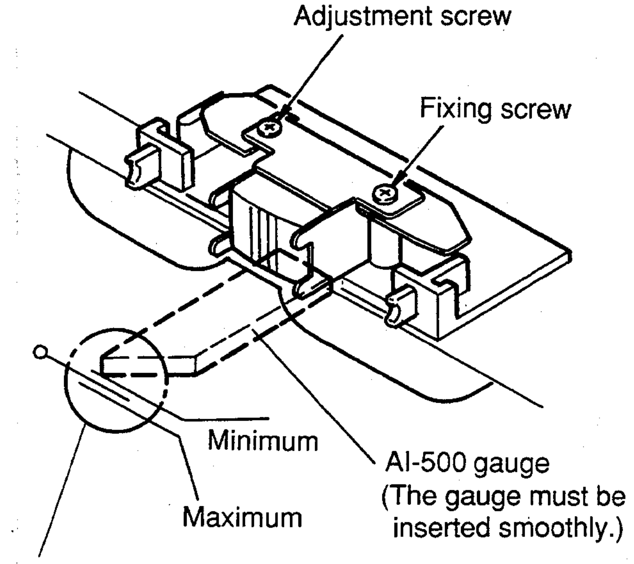

Playback head
AI-500 gauge
Tape head guide
Spacer

Figure 24

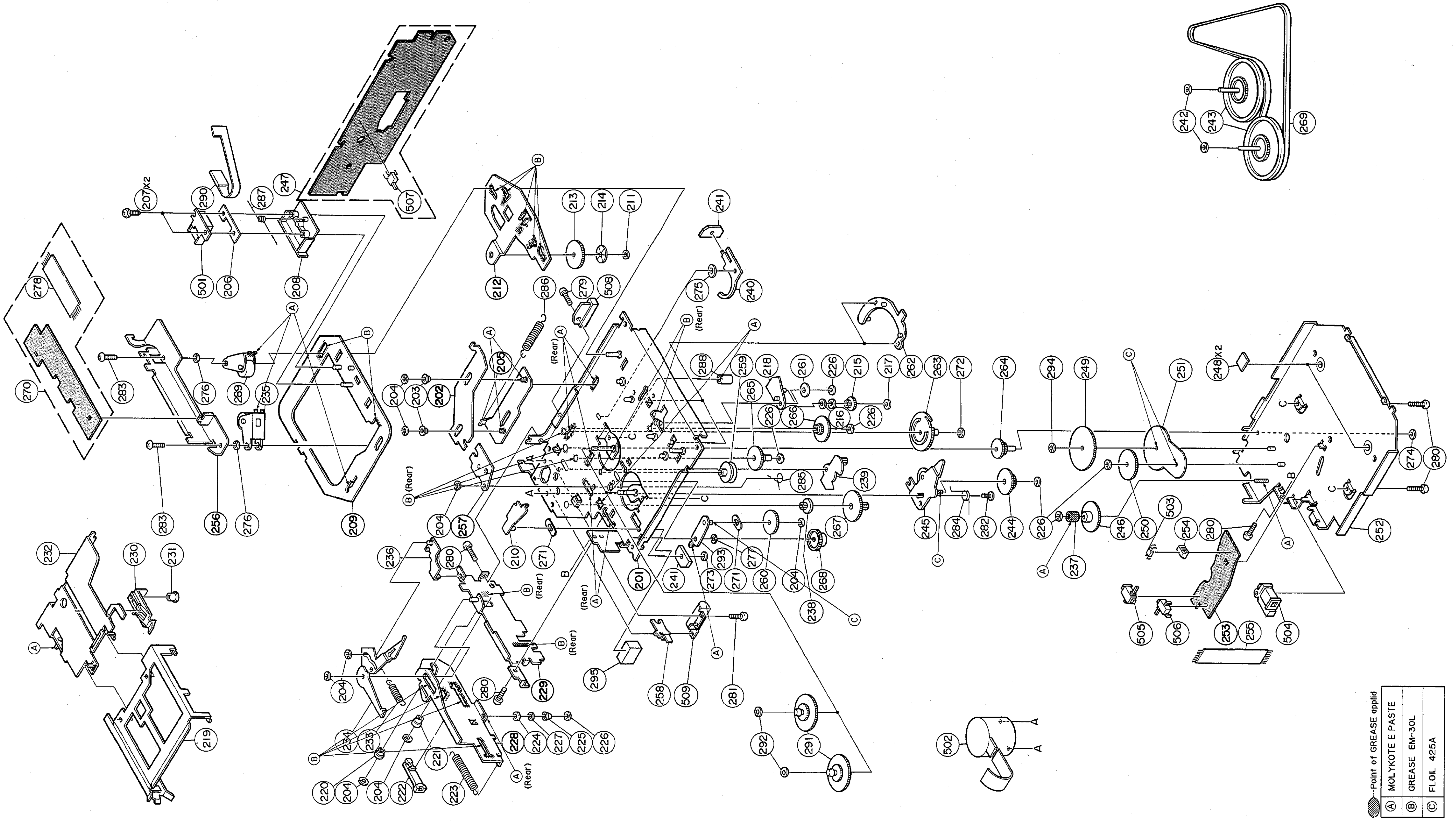

Adjustment screw
Fixing screw
Minimum
Maximum
AI-500 gauge
(The gauge must be inserted smoothly.)

The nosepiece of the gauge must be between the minimum and maximum positions.

Figure 25

Exploded View (1/3)

- **For GR75E010/01A/01C/020 Models**


1
2
3
4
5
207x2
290
287
247
507
501
206
208
278
270
283
276
289
235
283
256
276
209
212
213
214
211
286
279
508
241
240
275
(Rear)
205
202
204
203
(Rear)
288
259
218
261
226
215
217
262
263
272
265
226
266
216
226
264
294
249
251
248x2
274
280
252
239
285
245
284
282
244
226
246
250
503
254
280
237
257
204
236
280
210
271
201
241
273
293
271
277
260
204
238
267
268
(Rear)
232
230
231
219
229
204
280
234
233
221
228
224
227
225
226
220
204
204
222
223
295
258
509
281
292
291
502
505
506
253
255
504
242
243
269
A
B
C

	Point of GREASE applid
Ⓐ	MOLYKOTE E PASTE
Ⓑ	GREASE EM-30L
Ⓒ	FLOIL 425A

Cassette Deck Assembly Parts List (1/3)

Note : The parts without parts list are not supplied.

Symbol No.		IN-dex	Part No.	Description
	203	3-C	43A11072W01	Roller, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A10095W01	Spring, Head
	207	2-B	03S40019G03	Screw, F-Locks(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A10206W01	Assy.,Riv Lever R/F Sol
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A10681W01	Reflector
	215	3-E	44A10142W01	Gear, Planet
	216	3-E	41A10097W02	Spring, Clutch
	217	3-E	04B41345P35	Washer, Lock(M1.7)
	218	3-E	01A21853W01	Assy., Riv Lever Reverse
	219	4-B	07B10074W01	Holder, Cassette
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
	223	5-C	41B10386W03	Spring, GR(Rack)
	224	4-C	43A10121W01	Roller, Eject A
	225	4-D	43A10360W01	Roller, Eject B
	226		04B41345P11	Washer, Lock(M1.2)
	227	4-D	43A12377W01	Roller, Eject C
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
	232	4-A	01A10212W01	Assy.,Riv Plate Base
	233	4-C	41B10386W01	Spring, Eject Arm
	234	4-B	01A10148W01	Assy., Riv Eject Arm A
	235	3-B	01B10381W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever Pack In SW
	237	4-F	44A12975W01	Pinion, Eject
	238	4-E	44A13617W01	Gear, Motor Idler(B)
	239	3-E	01A10201W02	Assy., Riv Lever Pause
	240	2-D	45A10092W01	Lever, Play
	241		76T10374W01	Chip
	242	1-G	04S40075G05	Washer Polyslider (M2.1)
	243	1-G	01A10368W01	Assy., Flywheel
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W01	Assy., Riv Lever Clutch A
	246	3-F	44A10145W01	Gear, Eject
	247	2-B	01V11500W18	Assy., GR Control P.C. Board

Symbol No.		IN-dex	Part No.	Description
	248	3-G	43A90918F01	Spacer, Polyslider
	249	3-F	44A11063W01	Gear, Bottom A
	250	3-F	44A11064W01	Gear, Bottom B
	251	3-G	34A11122W02	Washer, GR
	252	3-H	01A10210W02	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol
	259	3-D	49A10131W01	Pulley, Idler
	260	4-E	44A10133W01	Gear, Take Up
	261	3-E	44A10134W01	Gear, Sun
	262	3-E	44B10135W01	Gear, Fix
	263	3-E	44B10136W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler A
	265	3-D	44A10379W01	Gear, Pause Idler B
	266	3-E	44A10138W01	Gear, Reverse Idler
	267	3-E	44A10139W01	Gear, Motor Idler
	268	4-E	44A11062W01	Gear, Reel Idler
	269	1-G	42A10380W01	Belt, GR
●	270	3-A	01V14700W68	Assy., GR Audio P.C. Board
■	270	3-A	01V11500W19	Assy., GR Audio P.C. Board
▲	270	3-A	01V11500W19	Assy., GR Audio P.C. Board
○	270	3-A	01V11500W19	Assy., GR Audio P.C. Board
	271	4-D	41A10097W02	Spring, Clutch
	272	3-F	04B41345P15	Washer, Lock(M1.2)
	273	4-D	04B41345P02	Washer, Lock(M1.7)
	274	3-H	04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276	3-B	04B41345P32	Washer, Lock(M3.1)
	277	4-E	04B41345P06	Washer, Lock(M2.1)
	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F38	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cas Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause

Notes : ● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only ○ ; For GR75E01C model only

Others ; Common

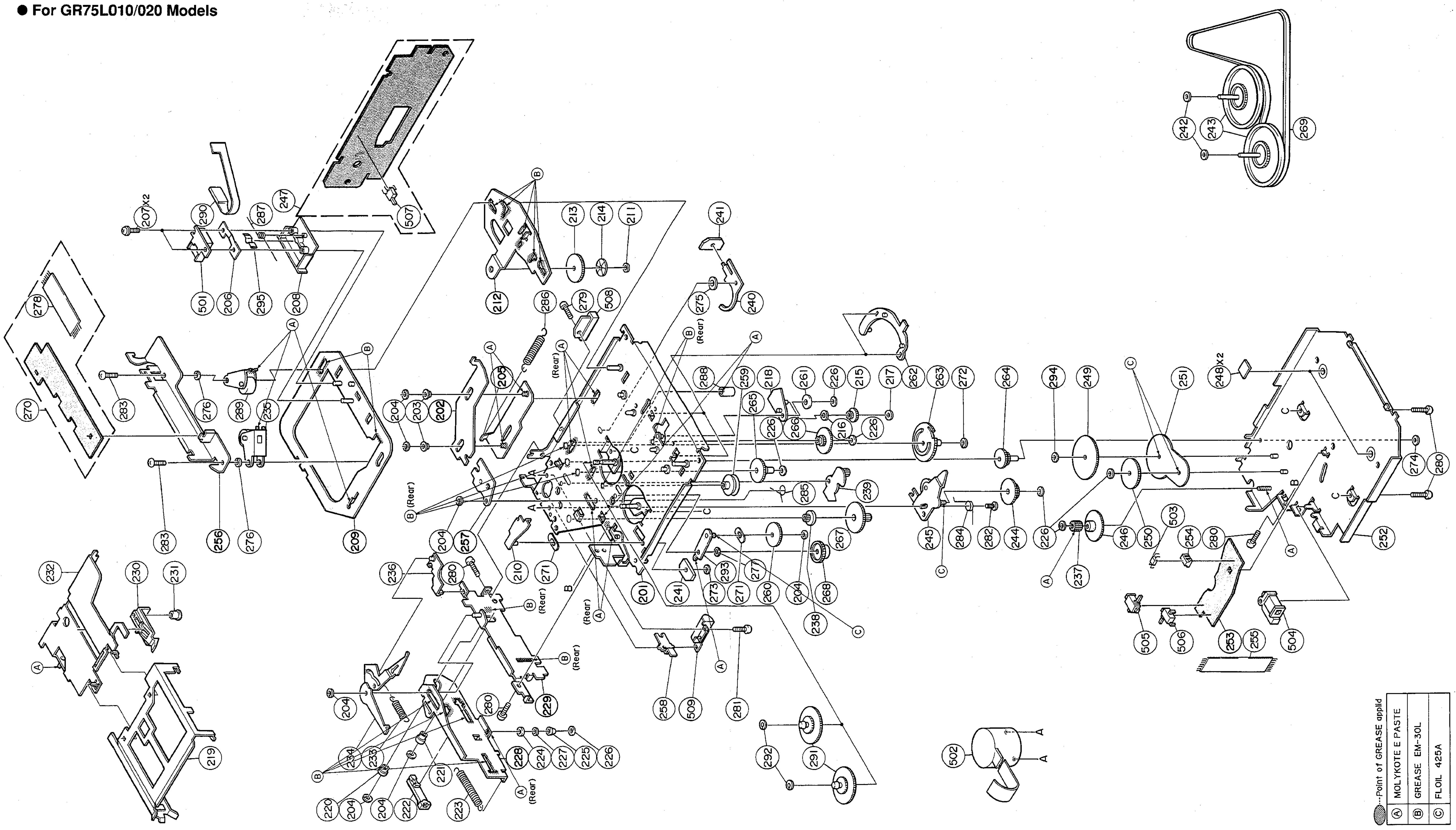
Symbol No.		IN-dex	Part No.	Description
	289	3-B	01B10381W01	Assy., Pinch Roller
	290	2-B	84T10367W01	Head P.C. Board
●	291	4-E	01T15164W01	Assy., Reel
■	291	4-E	01T15164W01	Assy., Reel
▲	291	4-E	01T15164W02	Assy., Reel
○	291	4-E	01T15164W01	Assy., Reel
	292	4-E	04B41345P12	Washer, Lock(M1.7)
●	293	4-D	01A11078W01	Assy., Riv Lever Take Up
■	293	4-D	01A11078W01	Assy., Riv Lever Take Up
▲	293	4-D	01A11078W01	Assy., Riv Lever Take Up
○	293	4-D	01A30161W01	Assy., Riv Lever Take Up
	294	3-F	04B41345P34	Washer, Lock(M1.2)
	295	4-D	75S12196W88	Rubber, Pad
	Miscellaneous			
●	501	2-B	88T15971W01	Head
■	501	2-B	88T10373W01	Head
▲	501	2-B	88T10373W01	Head
○	501	2-B	88T10373W01	Head
	502	4-E	01V11500W64	Assy., Motor
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy.
	505	4-F	40T15382W01	SW., Detector (Pack Down)
	506	4-G	40T15382W01	SW., Detector(Metal)
	507	2-C	40T15222W01	SW., Detector (Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Notes : ● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only ○ ; For GR75E01C model only

Others ; Common

Exploded View (2/3)

- **For GR75L010/020 Models**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B GREASE EM-30L
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Cassette Deck Assembly Parts List (2/3)

Symbol No.	IN-dex	Part No.	Description
203	3-C	43A11072W01	Roll, Sub Head
204		04B41345P01	Washer, Lock(M1.2)
206	2-B	41A21671W01	Spring, Head
207	2-B	03S40019G03	Screw, F-Locks(M2x4)
208	2-B	43B12545W01	Tape, Guide
210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
211	2-D	04B41345P29	Washer, Lock(M2.6)
213	2-D	44A10295W01	Gear, Sensor
214	2-D	14A10681W01	Reflector
215	3-E	44A10142W01	Gear, Planet
216	3-E	41A10097W02	Spring, Clutch
217	3-E	04B41345P31	Washer, Lock(M1.7)
218	3-E	01A21853W01	Assy., Riv Lever Reverse
219	4-B	07B10074W01	Holder, Cassette
220	5-B	43A12583W01	Roller, Eject
221	5-C	43A22153W01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-C	41B10386W03	Spring, GR(Rack)
224	4-C	43A10121W01	Roller, Eject(A)
225	4-D	43A10360W01	Roller, Eject(B)
226		04B41345P11	Washer, Lock(M1.2)
227	4-D	43A12377W01	Roller, Eject(C)
230	4-A	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-A	01A10212W01	Assy., Riv Plate Base
233	4-C	41B10386W01	Spring, Eject Arm
234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
235	3-B	01B10381W02	Assy., Pinch Roller
236	4-C	45A10087W01	Lever, Pack In SW.
237	4-F	44A20314W01	Pinion, Eject
238	4-E	44A13617W01	Gear, Motor Idler(B)
239	3-E	01A10201W02	Assy., Riv Lever Pause
240	2-D	45A10092W01	Lever, Play
241		76T10374W01	Chip
242	1-G	04S40075G05	Washer, Polyslider (M2.1)
243	1-G	01A10368W01	Assy., Flywheel
244	3-F	44A10141W02	Gear, Eject Idler
245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
246	3-F	44A10145W01	Gear, Eject
247	2-B	01V23700W03	Assy., GR Control P.C. Board

Notes : ★ ; For GR75L010 model only ◆ ; For GR75L020 model only
Others : Common

Note : The parts without parts list are not supplied.

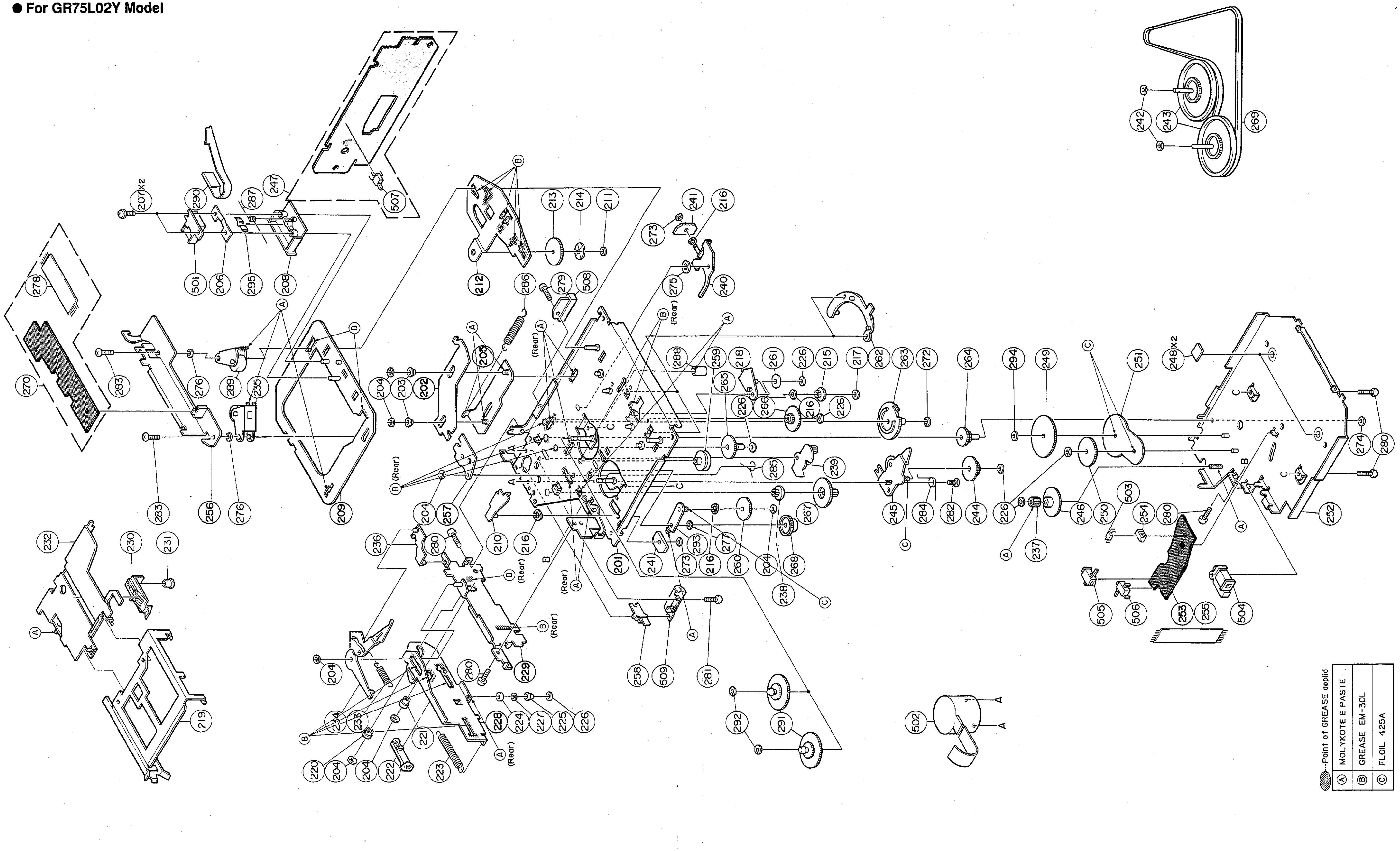
Symbol No.	IN-dex	Part No.	Description
248	3-G	43A90918F01	Spacer, Polyslider
249	3-F	44A11063W01	Gear, Bottom(A)
250	3-F	44A11064W01	Gear, Bottom(B)
251	3-G	34A11122W02	Washer, GR
252	3-H	01A10210W02	Assy., Riv. Cover Bottom
254	3-G	15B11065W01	Guide, Photo
255	4-G	30T15126W01	Wire, PC Sensor(7P)
258	4-D	45A10101W01	Lever, Eject Sol.
259	3-D	49A10131W01	Pulley, Idler
260	4-E	44A10133W01	Gear, Take Up
261	3-E	44A10134W01	Gear, Sun
262	3-E	44B10135W01	Gear, Fix
263	3-E	44B21670W01	Gear, Pause
264	3-F	44A10137W01	Gear, Pause Idler(A)
265	3-D	44A10379W01	Gear, Pause Idler(B)
266	3-E	44A10138W01	Gear, Reverse Idler
267	3-E	44A10139W01	Gear, Motor Idler
268	4-E	44A11062W01	Gear, Reel Idler
269	1-G	42A10380W01	Belt, GR
★ 270	3-A	01V11500W19	Assy., GR Audio P.C. Board
◆ 270	3-A	01V14700W68	Assy., GR Audio P.C. Board
271		41A10097W02	Spring, Clutch
272	3-F	04B41345P15	Washer, Lock(M1.2)
273	4-D	04B41345P02	Washer, Lock(M1.7)
274	3-H	04B41345P17	Washer, Lock(M1)
275	2-D	04B41345P30	Washer, Lock(M3.1)
276	3-B	04B41345P32	Washer, Lock(M3.1)
277	4-E	04B41345P06	Washer, Lock(M2.1)
278	2-A	30T15126W02	Wire, PC Joint 7P
279	2-D	03S44205G78	Screw, Pan(M2x6)
280		03S44205G30	Screw, Pan(M2.6x4)
281	4-D	03S72235F38	Screw, Pan(M2x3.3)
282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
283		03S43997P64	Screw, Pan(M1.7x3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	3-E	41A10385W01	Spring, Cas. Push
286	2-C	41B10386W02	Spring, Sub Head
287	2-B	41A10387W01	Spring, Pinch Roller
288	3-D	43A12719W01	Roller, Pause
289	3-B	01B10381W01	Assy., Pinch Roller
290	2-B	84T10367W01	Head P.C. Board

Symbol No.	IN-dex	Part No.	Description
291	4-E	01T15164W03	Assy., Reel
292	4-E	04B41345P12	Washer, Lock(M1.7)
293	4-D	01A11078W01	Assy., Riv Lever Take Up
294	3-F	04B41345P34	Washer, Lock(M1.2)
295	2-B	26A20537W01	Shield, Plate
Miscellaneous			
★ 501	2-B	88T10373W01	Head
◆ 501	2-B	88T15971W01	Head
502	4-E	01V23900W60	Assy., Motor
503	3-G	51T15144W01	Sensor, Photo
504	4-G	01T10371W01	R/F Sol. Assy
505	4-F	40T15382W01	SW., Detector (Pack Down)
506	4-G	40T15382W01	SW., Detector (Metal)
507	2-C	40T15222W01	SW., Detector (Pack In)
508	2-D	01T15249W01	Assy., Play Solenoid
509	4-D	01T10369W02	Assy., Eject Solenoid

Notes : ★ ; For GR75L010 model only ◆ ; For GR75L020 model only
Others ; Common

Exploded View (GR-Y Series) (3/3)

- **For GR75L02Y Model**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Ⓐ MOLYKOTE E PASTE
Ⓑ GREASE EM-30L
Ⓒ FLOIL 425A

Cassette Deck Assembly Parts List (GR-Y Series) (3/3)

Note : The parts without parts list are not supplied.

Symbol No.	IN-dex	Part No.	Description
203	3-C	43A11072W01	Roll, Sub Head
204		04B41345P01	Washer, Lock(M1.2)
206	2-B	41A21671W01	Spring, Head
207	2-B	03S40019G03	Screw, P-Locks(M2x4)
208	2-B	43B12545W01	Tape, Guide
210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
211	2-D	04B41345P38	Washer, Lock(M2.6)
213	2-D	44A10295W01	Gear, Sensor
214	2-D	14A10681W01	Reflector
215	3-E	44A10142W01	Gear, Planet
216		41A10097W02	Spring, Clutch
217	3-E	04B41345P31	Washer, Lock(M1.7)
218	3-E	01A21853W01	Assy., Riv Lever Reverse
219	4-B	07B10074W01	Holder, Cassette
220	5-B	43A12583W01	Roller, Eject
221	5-C	43A63281F01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-C	41B10386W03	Spring, GR(Rack)
224	4-C	43A10121W01	Roller, Eject(A)
225	4-D	43A10360W01	Roller, Eject(B)
226		04B41345P11	Washer, Lock(M1.2)
227	4-D	43A12377W01	Roller, Eject(C)
230	4-A	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-A	01A10212W01	Assy., Riv Plate Base
233	4-C	41B10386W01	Spring, Eject Arm
234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
235	3-B	01B10381W02	Assy., Pinch Roller
236	4-C	45A10087W01	Lever, Pack In SW.
237	4-F	44A20314W01	Pinion, Eject
238	4-E	44A13617W01	Gear, Motor Idler(B)
239	3-E	01A10201W02	Assy., Riv Lever Pause
240	2-D	01A30879W01	Assy., Riv. Play Sol.
241		76T10374W01	Chip
242	1-G	04S40075G05	Washer, Polyslider (M2.1)
243	1-G	01A10368W01	Assy., Flywheel
244	3-F	44A10141W01	Gear, Eject Idler
245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
246	3-F	44A10145W01	Gear, Eject
247	2-B	01V23700W04	Assy., GR Control P.C. Board
248	3-G	43A90918F01	Spacer, Polyslider
249	3-F	44A11063W01	Gear, Bottom(A)
250	3-F	44A11064W01	Gear, Bottom(B)
251	3-G	34A11122W02	Washer, GR
252	3-H	01A10210W02	Assy., Riv. Cover Bottom
254	3-G	15B11065W01	Guide, Photo
255	4-G	30T15126W01	Wire, PC Sensor(7P)
258	4-D	45A10101W01	Lever, Eject Sol.
259	3-D	49A10131W01	Pulley, Idler
260	4-E	44A10133W01	Gear, Take Up
261	3-E	44A10134W01	Gear, Sun
262	3-E	44B10135W01	Gear, Fix
263	3-E	44B21670W01	Gear, Pause
264	3-F	44A10137W01	Gear, Pause Idler(A)
265	3-D	44A10379W01	Gear, Pause Idler(B)
266	3-E	44A10138W01	Gear, Reverse Idler
267	3-E	44A10139W01	Gear, Motor Idler
268	4-E	44A11062W01	Gear, Reel Idler
269	1-G	42A10380W01	Belt, GR
270	3-A	01V33300W03	Assy., GR Audio P.C. Board
272	3-F	04B41345P15	Washer, Lock(M1.2)
273		04B41345P02	Washer, Lock(M1.7)
274	3-H	04B41345P17	Washer, Lock(M1)
275	2-D	04B41345P30	Washer, Lock(M3.1)
276	3-B	04B41345P32	Washer, Lock(M3.1)
277	4-E	04B41345P37	Washer, Lock(M2.1)
278	2-A	30T15126W02	Wire, PC Joint 7P
279	2-D	03S44205G78	Screw, Pan(M2x6)
280		03S44205G30	Screw, Pan(M2.6x4)
281	4-D	03S72235F38	Screw, Pan(M2x3.3)
282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
283		03S43997P64	Screw, Pan(M1.7x3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	3-E	41A10385W01	Spring, Cas. Push
286	2-C	41B10386W02	Spring, Sub Head
287	2-B	41A10387W01	Spring, Pinch Roller
288	3-D	43A12719W01	Roller, Pause
289	3-B	01B10381W01	Assy., Pinch Roller
290	2-B	84T35271W01	Head P.C. Board

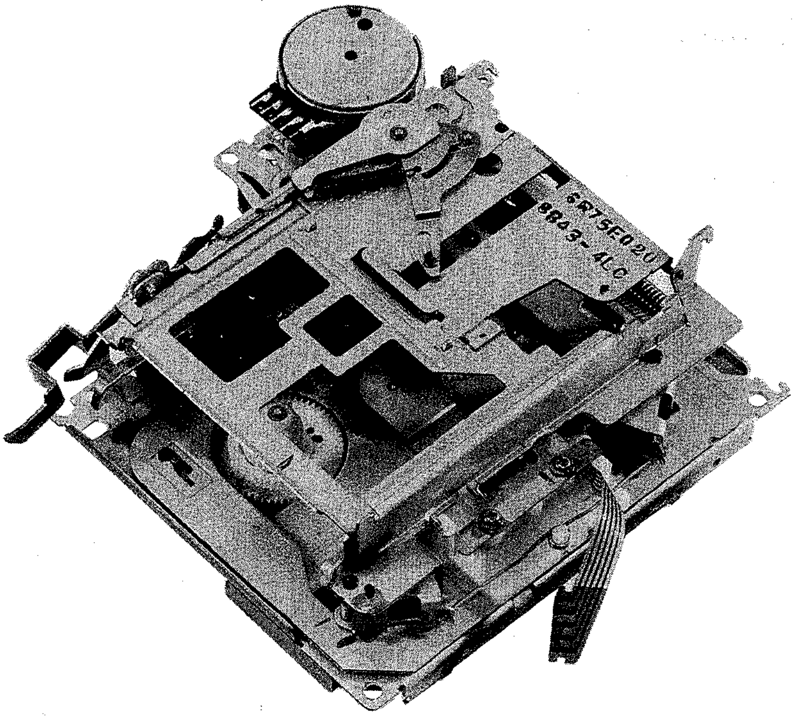
Symbol No.	IN-dex	Part No.	Description
291	4-E	01T15164W03	Assy., Reel
292	4-E	04B41345P12	Washer, Lock(M1.7)
293	4-D	01A30161W01	Assy., Riv Lever Take Up
294	3-F	04B41345P34	Washer, Lock(M1.2)
295	2-B	26A20537W01	Shield, Plate
Miscellaneous			
501	2-B	88T15971W01	Head
502	4-E	01V23900W60	Assy., Motor
503	3-G	51T15144W01	Sensor, Photo
504	4-G	01T10371W01	R/F Sol. Assy
505	4-F	40T15382W01	SW., Detector (Pack Down)
506	4-G	40T15382W01	SW., Detector (Metal)
507	2-C	40T15222W01	SW., Detector (Pack In)
508	2-D	01T15249W01	Assy., Play Solenoid
509	4-D	01T10369W02	Assy., Eject Solenoid

ALPINE®

SERVICE MANUAL

Cassette Deck Mechanism

ADDENDUM & REVISED (VI)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GR/GR-Y SERIES

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Cassette Deck Assembly Parts List (GR75H Series) (4/4) .... 31 to 33

List of Usable Lock Washers

	SIZE	PARTS NO.	QUANTITY					
			GR75E Series	GR75L Series	GR-Y Series	GR75H 020/030/ 120/130	GR75H 12A/13A	GR75H 110
1	(M1.2 × 3.5 × 0.25)	04B41345P01	4	4	4	2	2	2
2	(M1.7 × 3.5 × 0.25)	04B41345P02	1	1	1	4	6	4
3	(M1.2 × 2.5 × 0.25)	04B41345P11	8	8	8	9	9	9
4	(M1.7 × 3.5 × 0.35)	04B41345P12	2	2	2	2	2	0
5	(M1.2 × 3.5 × 0.35)	04B41345P15	2	2	2	2	2	2
6	(M1 × 2.5 × 0.25)	04B41345P17	1	1	1	2	2	2
7	(M2.6 × 5 × 0.25)	04B41345P29	1	1	1	1	1	1
8	(M3.1 × 8 × 0.05)	04B41345P30	1	1	1	1	1	1
9	(M3.1 × 5 × 0.35)	04B41345P32	2	2	2	2	2	2
10	(M1.2 × 2.5 × 0.3)	04B41345P34	1	1	1	0	0	0
11	(M1.7 × 2.8 × 0.25)	04B41345P35	1	1	1	2	2	2
12	(M2.1 × 4 × 0.25)	04B41345P37	1	1	1	0	0	0
13	(M2.1 × 4 × 0.13)	04S40075G05	2	2	2	3	4	1
14	(M2.1 × 4 × 0.3)	04S40075G58	0	0	0	1	1	1
15	(M2.1 × 5.5 × 0.5)	04S40075G62	0	0	0	1	1	1
16	(M2.1 × 5.5 × 0.13)	04S40075G63	0	0	0	1	1	1

List of Usable Oil

1) Molykote G paste
2) Grease EM-30L
3) Grease PG-671

List of Usable Jigs

1) GR bottom gear jig (Part No. 44A20788W01)
2) Head height adjustment gauge
   AI-500 (Part No. AI-500)

Memo

Disassembly, Assembly and Replacement of Functional Parts

1. Disassembly and Assembly of Bottom Cover

(1) Turn the mechanism around as shown in Figure 1.

(2) Remove M1 lock washer ① as shown in Figure 1.

(3) Remove three screws ② as shown in Figure 1.

(4) Lift the bottom cover slowly from the position Ⓐ-1, pull the hooks out of the holes in the chassis, and remove the bottom cover as shown in Figure 1.

(5) When remounting the bottom cover, first turn the front of the mechanism up as shown in Figure 2.

(6) Slide the slider in the direction Ⓐ-2 as shown in Figure 2.

(7) Push down the cassette holder in the direction Ⓐ-3 as shown in Figure 2.

(8) Pull the door pin in the direction Ⓐ-4 so that the mechanism is locked in as shown in Figure 2.

(9) Turn the mechanism around as shown in Figure 3.

(10) Pull the automatic metal lever in the direction Ⓐ-5 and the RF solenoid chip in the direction Ⓐ-6 as shown in Figure 3.

(11) Insert the hooks of the bottom cover into the chassis in the direction Ⓐ-7, and then join the part Ⓐ-8 of the bottom cover to the chassis slowly, making sure that the 3 points indicated with the straight lines in the Figure 3 are fitted properly.
If there are troubles in mounting the bottom cover, do not apply force but remove the bottom cover once again and check the positions of the individual parts. (Refer to Figure 3.)

(12) Since the hooks marked Ⓐ-8 will be lifted slightly as shown in Figure 4, insert the jig through the hole Ⓐ-9, and fix it turning the jig slightly in the direction Ⓐ-11.
Instead of operation (12), turn the gear nose slowly with a precision screwdriver etc., taking care not to damage it.
After 2 to 3 turns, it will click into place.
(Refer to Figures 4 and 5.)

(13) Fix the screws and the lock washer that have been removed.

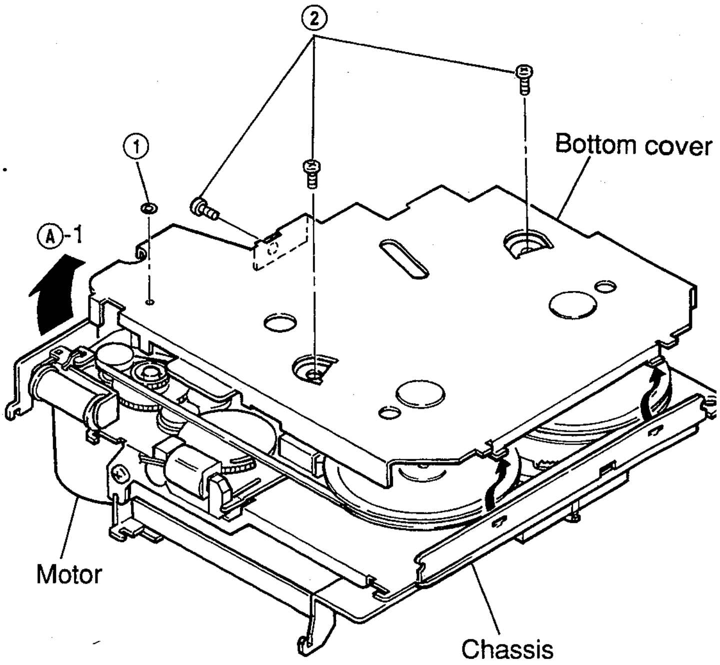


Figure 1

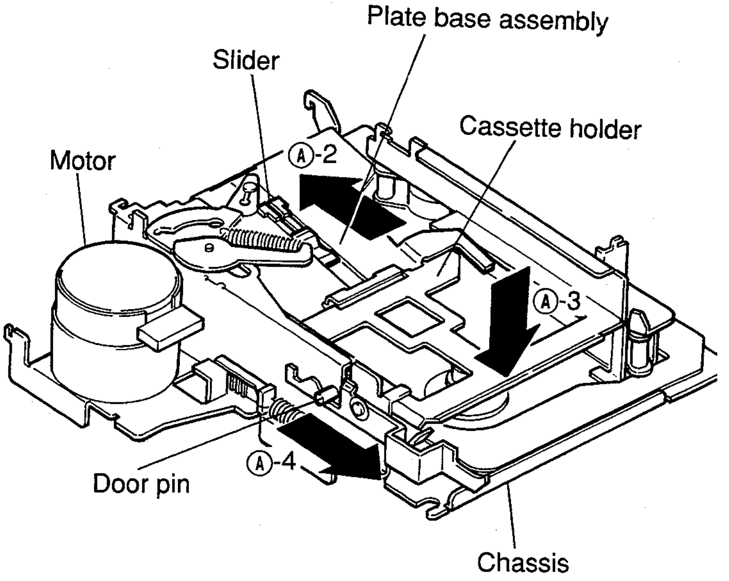


Figure 2

(14) Insert the jig into the hole Ⓐ-9 as shown in Figure and rotate the eject solenoid counterclockwise about 20 times, pulling it in the direction Ⓐ-10 with the finger.
Then the eject operation is completed.
Instead of operation (14), the eject operation can be performed by mounting the mechanism to the product. (Refer to Figures 4 and 5.)

Note: Do not reuse the used lock washers for mounting.
When turning the mechanism, be careful not to drop the gear and the flywheel.
Fasten the three screws with a fastening torque of 6 kg.cm.

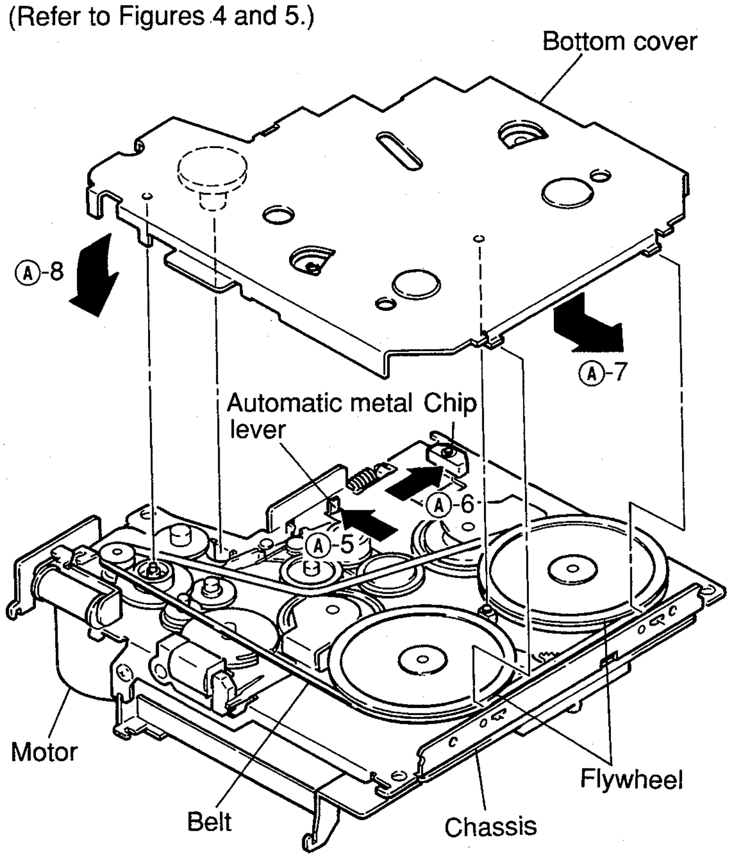

Bottom cover
Ⓐ-8
Ⓐ-7
Automatic metal lever
Chip
Ⓐ-6
Ⓐ-5
Motor
Belt
Chassis
Flywheel

Figure 3

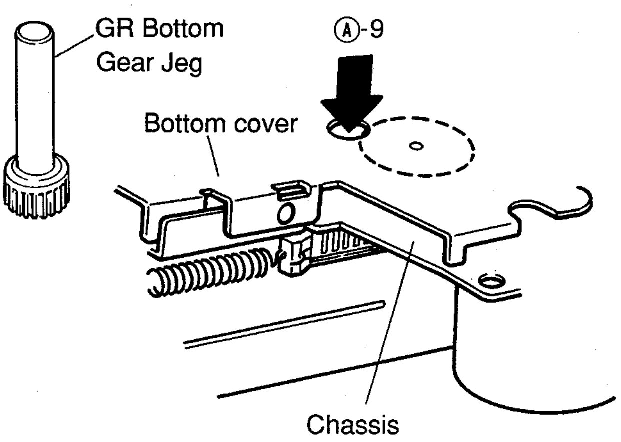

GR Bottom Gear Jeg
Ⓐ-9
Bottom cover
Chassis

Figure 4

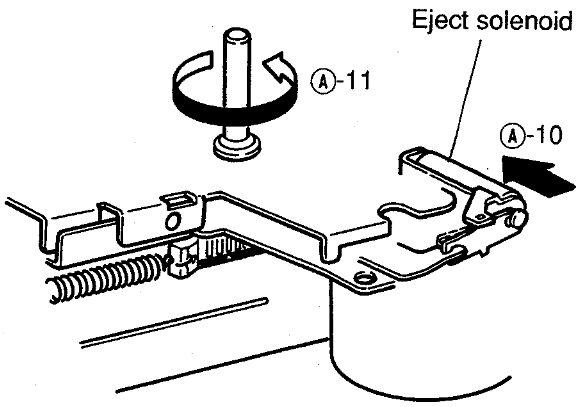

Eject solenoid
Ⓐ-11
Ⓐ-10

Figure 5

2. Replacement of the bottom cover mounting parts

a. Replacement of the eject gear

(1) Remove M1.2 lock washer ③ as shown in Figure 6.

(2) Pull the eject pinion out of the eject gear and remove the eject gear as shown in Figure 6.

(3) Apply the molykote E paste to the section Ⓑ-1, and mount the eject gear following the removal steps in the reverse order. After replacement is finished, make sure that the gear rotates smoothly. (Refer to Figure 6.)

Note: Do not reuse the used lock washers for remounting.
Take care to avoid damage by piercing and tearing.

b. Replacement of the RF solenoid

(1) Remove two solders ④ and remove the RF solenoid from the bottom cover by pulling it up as shown in Figure 6.

(2) Replace the solenoid with a new one, and remount it following the removal steps in the reverse order as shown in Figure 6.

Note: When removing solder ④, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged.

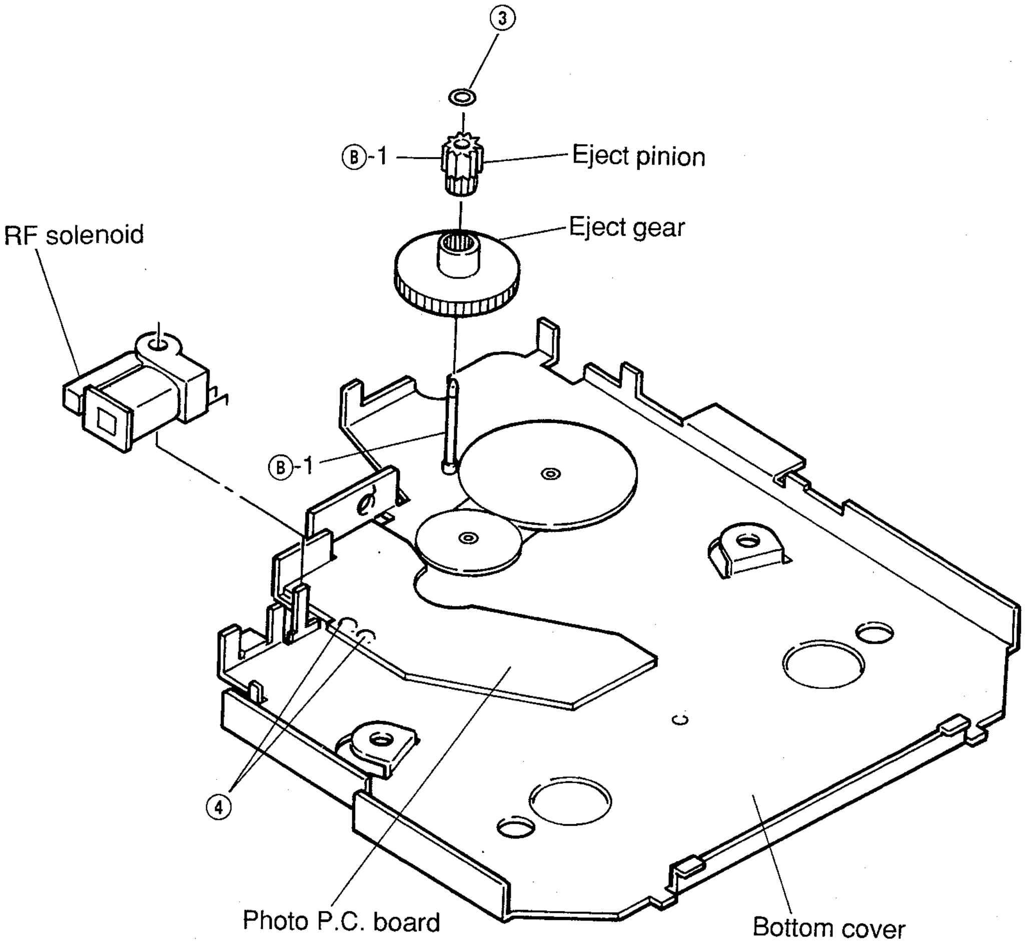


Figure 6

c. Replacement of the photo sensor

1. Remove four solders ⑤ as shown in Figure 7.
2. Remove the photo guide together with the photo sensor from the photo P.C. board as shown in Figure 7.
3. Insert the new photo sensor into the photo guide, and bend the legs of the photo sensor in the direction marked Ⓑ-2 as shown in Figure 7.
4. Insert the photo guide into the P.C. board and solder the legs so that the photo sensor is set as indicated by ⬚ in Figure 7.

Note: When using the soldering iron, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged. Also take care that the photo guide is properly fixed and straight.

d. Replacement of the detector switch
(Automatic metal pack-in)

1. Remove 4 solders ⑥ with which the switch is fixed as shown in Figure 7.
2. Prepare the terminals of the switch of the new solder as shown in Figure 8.
3. After that, insert the switch into the photo P.C. board, and solder the terminals.

Note: When using the soldering iron, refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Also take care that the switch guide is properly fixed and straight.

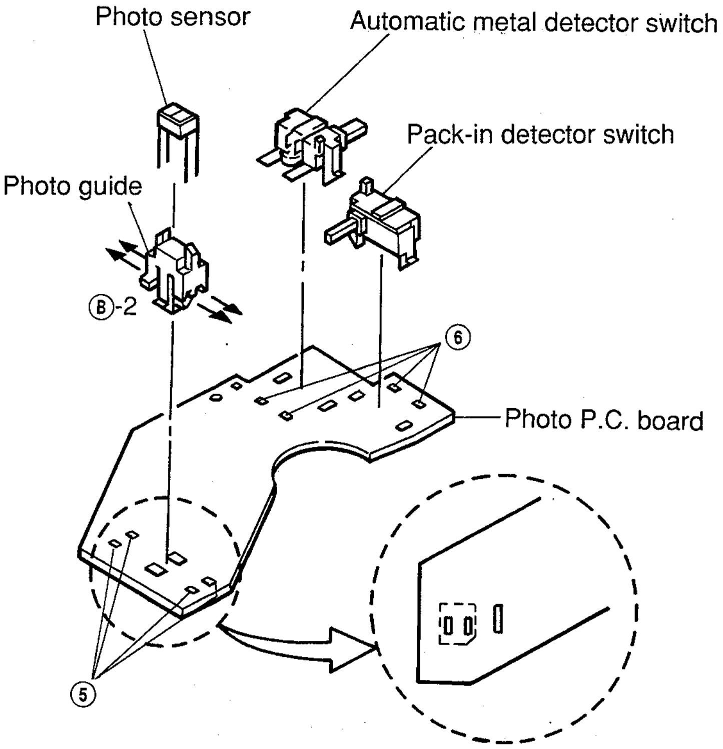


Figure 7

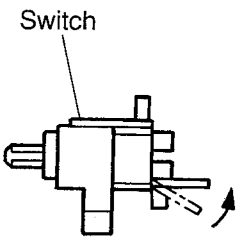


Figure 8

3. Replacement of the mounting parts on the rear of the main chassis

a. Replacement of the belt

(1) After removing the bottom cover, remove the belt.

(2) Clean the new belt with absolute alcohol, and fix it as shown in Figure 9.

Note: When fixing the belt, make sure that it is not twisted or dirty. When removing the belt, do not turn up the front of the chassis.

b. Replacement of the motor

(1) After removing the belt, remove spring ⑦ as shown in Figure 10.

(2) Remove solder ⑧-1, and remove the parallel wire (5P) from the control P.C. board as shown in Figure 11.

(3) Remove two screws ⑨ and ⑩, and remove the motor, taking care not to damage the motor idler gear. (Refer to Figure 10.)

(4) Mount the new motor following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Since the parallel wire is very easily damaged, handle it with care.
Fasten the two screws with a fastening torque of 3 kg.cm.

*When inserting the clutch spring, be careful of the inserting direction as shown in the Figure.

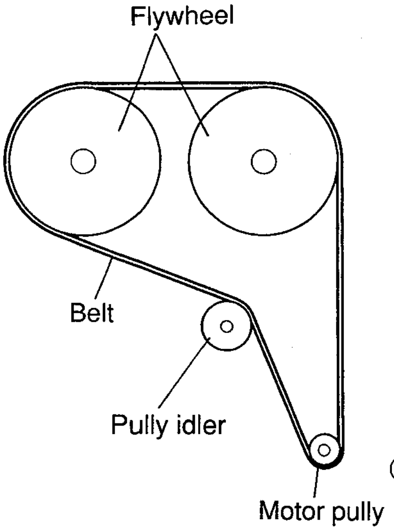
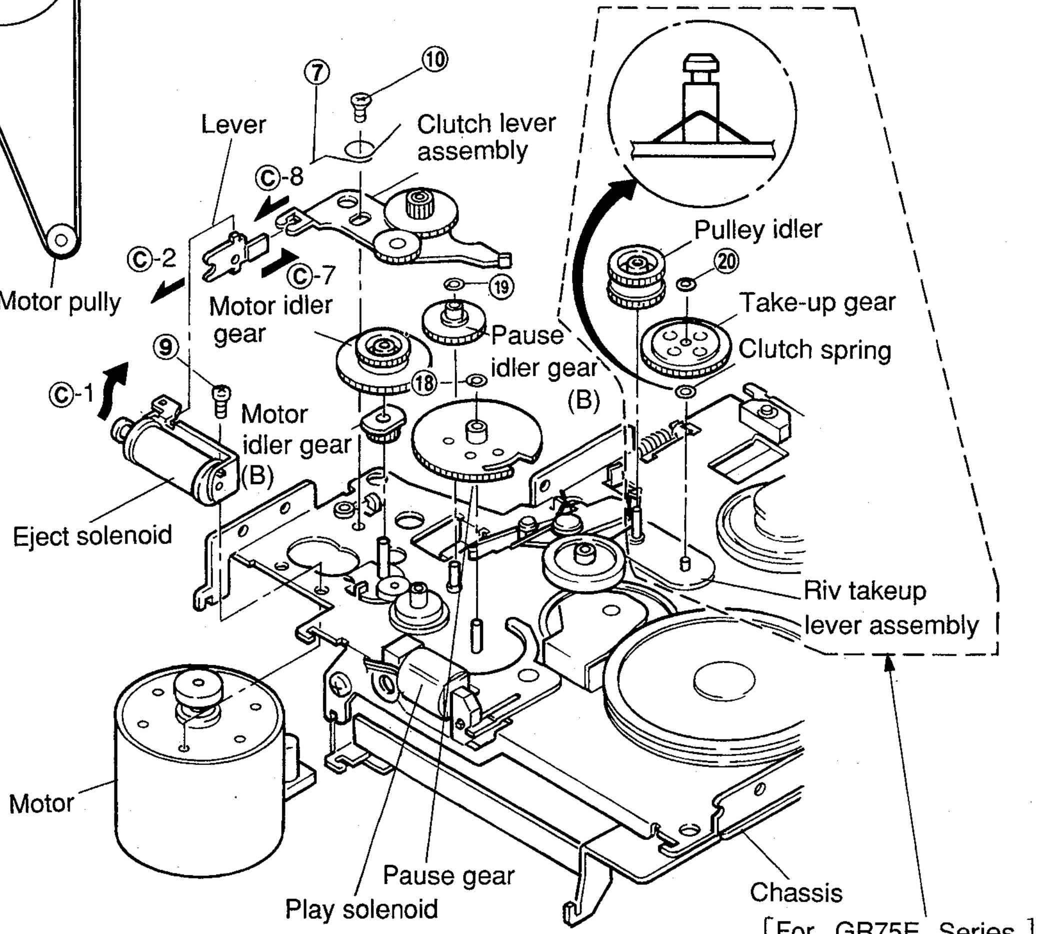

Flywheel
Belt
Pully idler
Motor pully

Figure 9


⑦
⑩
Lever
Clutch lever assembly
©-8
©-2
©-7
Motor idler gear
⑲
Pulley idler
⑳
Take-up gear
Clutch spring
Pause idler gear (B)
⑨
⑱
©-1
Motor idler gear (B)
Eject solenoid
Riv takeup lever assembly
Motor
Pause gear
Play solenoid
Chassis

For GR75E Series
GR75L Series
GR-Y Series
models

Figure 10

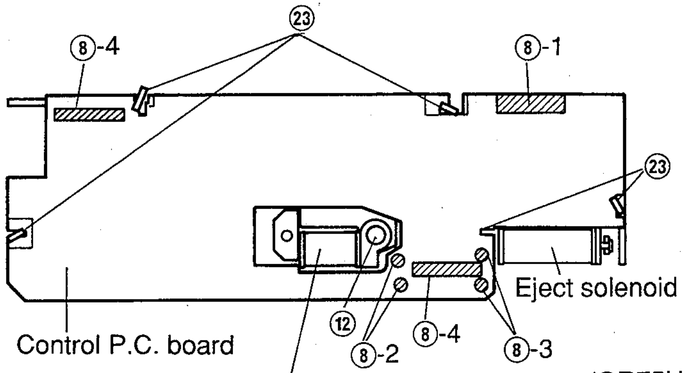
c. Replacement of the flywheels
(1) After removing the belt, pull out the two flywheels. Take care not to loose the polyslider washer ⑪ located between the flywheel and the chassis. (Refer to Figure 12.)
(2) Fix the polyslider washer to the new flywheel and mount the flywheel to the chassis.

d. Replacement of the play solenoid
(1) Remove the two solders ⑧-2 as shown in Figure 11.
(2) Remove one screw ⑫ and remove the solenoid as shown in Figure 11.
(3) Mount the new solenoid following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 2.3 kg.cm.

e. Replacement of the eject solenoid
(1) Remove two solders ⑧-3. Take care not to loose the tube that protects the wire. (Refer to Figure 11.)
(2) Remove screw ⑨ and remove the solenoid as shown in Figure 10.
(3) Align position ⓒ-1 of the new solenoid with position ⓒ-2 of the lever and fasten the screw as shown in Figure 10.
(4) Lead the wire through the tube and solder it.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 3 kg.cm. As the solenoid wires are not insulated, do not let them cross each other.


㉓
⑧-4
⑧-1
㉓
Eject solenoid
Control P.C. board
⑫
⑧-2
⑧-4
⑧-3
Play solenoid

[For GR75E Series model]

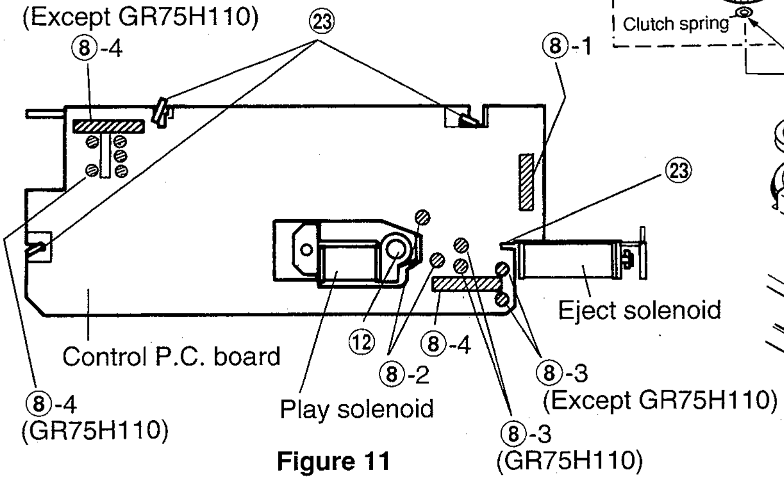

(Except GR75H110)
⑧-4
㉓
⑧-1
㉓
Eject solenoid
Control P.C. board
⑫
⑧-4
⑧-2
⑧-3
(Except GR75H110)
⑧-4
(GR75H110)
Play solenoid
⑧-3
(GR75H110)

Figure 11

[For GR75L Series
GR-Y Series
GR75H Series models]

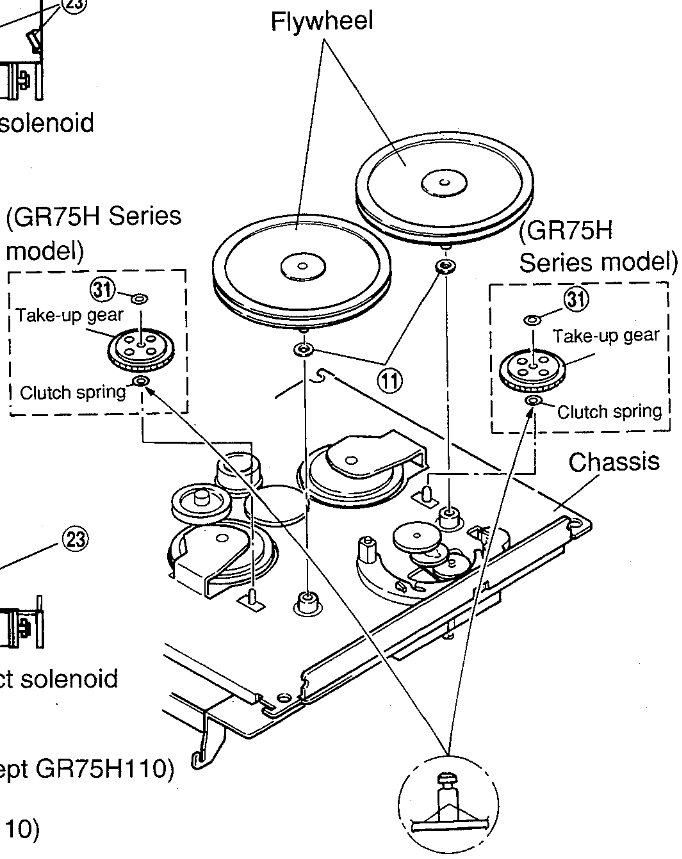

Flywheel
(GR75H Series model)
㉛
Take-up gear
Clutch spring
(GR75H Series model)
㉛
Take-up gear
Clutch spring
⑪
Chassis

Figure 12

f. Replacement of gears

(f-1) Replacement of the reverse idler gear

1. Remove M1.2 lock washer ⑬, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.
2. Remount following the removal steps in the reverse order.

(f-2) Replacement of the sun gear

1. Remove M1.2 lock washer ⑭, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.
2. Mount it, following the removal steps in the reverse order.

(f-3) Replacement of the fixing gear

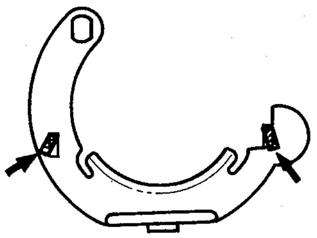
1. Adjust the two mounting claws for the fix gear on the chassis ⑮ and remove the section ⓒ-3 of the gear by pulling it up in the direction of the arrow shown in Figure 13.
2. Insert the section ⓒ-4 of the new gear into the chassis, and mount it following the removal steps in the reverse order as shown in Figure 13.

(f-4) Replacement of the reverse lever assembly and planet gear

1. Remove both the fixing gear and the sun gear and remove the reverse lever assembly as shown in Figure 13.
2. Remove M1.7 lock washer ⑯ and remove the planet gear as shown in Figure 14.
3. Mount the new planet gear and reverse lever following the removal steps in the reverse order.

Notes on f-1 through f-4:
After mounting all parts, check if the reverse lever moves in the directions marked ⓒ-5 when the reverse gear is turned clockwise and counterclockwise.

*After mounting the fixing gear, bend the claws ⑮ into the form of as shown in the Figure.



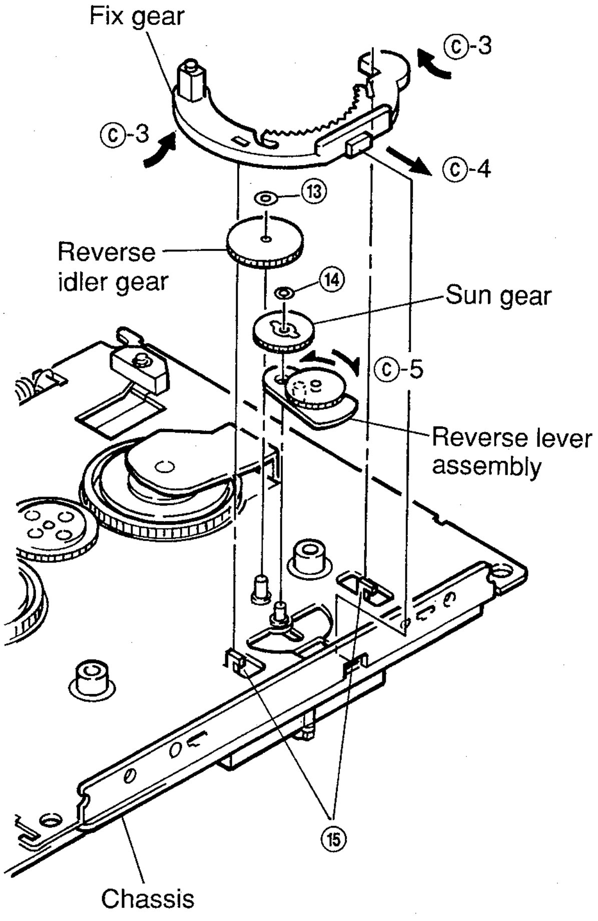


Figure 13

(f-5) Replacement of the clutch lever assembly and eject idler gear

(1) After removing the motor, remove the motor idler gear and the motor idler gear (B) and remove the clutch lever assembly as shown in Figure 10.
(2) Remove M1.2 lock washer ⑰ and remove the eject idler gear as shown in Figure 15.
(3) Mount the new gears and clutch lever following the removal steps in the reverse order.

Note: When mounting the gears to the lever, apply grease (PG-671) to the position ©-6 as shown in Figure 15. Align the position ©-7 with the position ©-8 and mount the clutch lever as shown in Figures 10 and 15.

(f-6) Replacement of the pause gear

(1) Remove M1.2 lock washer ⑱ and remove the pause gear pulling it up from the stud of the chassis as shown in Figure 10.
(2) Mount the new gear following the removal steps in the reverse order.

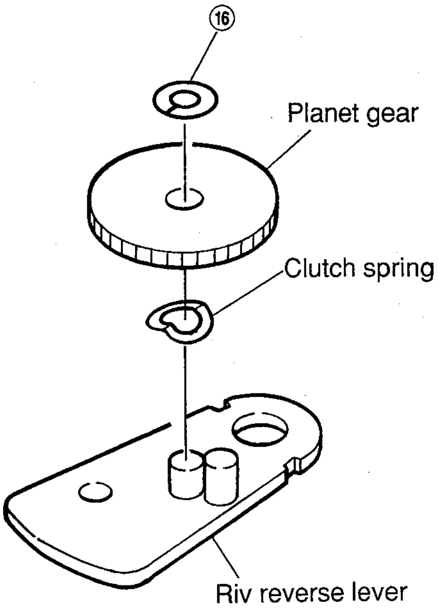
(f-7) Replacement of the pause idler gear (B)

(1) After removing the motor and the motor idler gear, remove M1.2 lock washer ⑲ and remove the gear by pulling it up from the stud of the chassis as shown in Figure 10.
(2) Mount the new gear by following the removal steps in the reverse order.

(f-8) Replacement of the take-up gear

(1) After removing the belt and the pulley idler gear, remove M1.2 lock washer ⑳ by pulling it up from the stud of the riv take-up lever assembly as shown in Figure 10. [For GR75E Series, GR75L Series, GR-Y Series models] After removing the Flywheel, remove M1.2 lock washer ㉛ and remove the gear by pulling it up from the stud of the chassis as shown in figure 12. [For GR75H Series model]
(2) Remount the take-up gear following the removal steps in the reverse order.

Notes on f:
Do not reus e the used washers. Take care to avoid damage by piercing and tearing.



[Disassembly Reverse Lever Assembly]

Figure 14

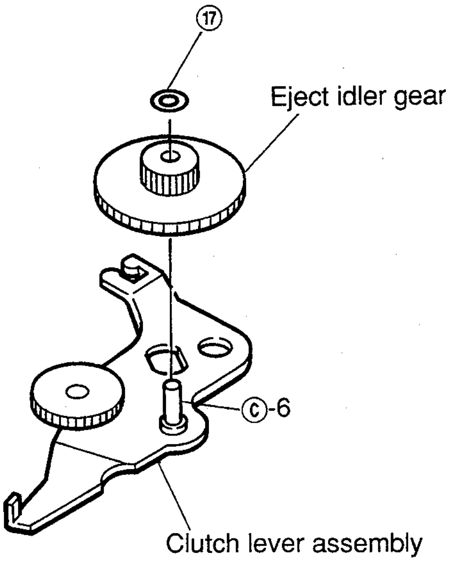


Figure 15

4. Replacement of the parts mounted on the front of the main chassis

a. Replacement of the audio P.C. board
(Except GR75H110)

(1) Remove two solders ㉑ and remove the parallel wire (7P) and the head P.C. board as shown in Figure 16.

(2) Adjust the two claws ㉒ to the rectangular holes on the P.C. board and remove the P.C. board as shown in Figure 16.

(3) After replacement, mount the new P.C. board following the removal steps in the reverse order.

Note: The head P.C. board and the parallel wire are easily damaged. Handle them with care. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board.

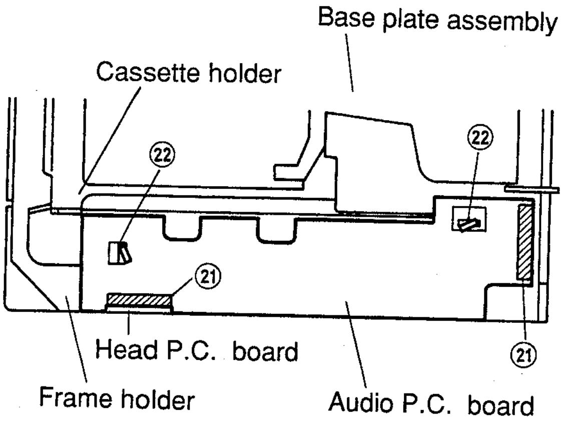

Base plate assembly
Cassette holder
㉒
㉒
㉑
Head P.C. board
㉑
Frame holder
Audio P.C. board

Figure 16

b. Replacement of the control P.C. board

(1) Remove seven solders ⑧ and remove the three parallel wires and the wires of the eject solenoid and of the play solenoid as shown in Figure 11.

(2) Remove five claws ㉓ and remove the P.C. board as shown in Figure 11. [For GR75E Series model] Remove four claws ㉓ and remove the P.C. board as shown in Figure 11. [For GR75L Series, GR-Y Series, GR75H Series models]

(3) After replacing the old P.C. board with a new one, mount it following the removal steps in the reverse order.

Note: As mentioned in Item 4-a, handle the parallel wires carefully, and be sure that the temperature of the soldering iron and the soldering time are proper. As the wires of the eject solenoid are not insulated, do not let them cross each other.

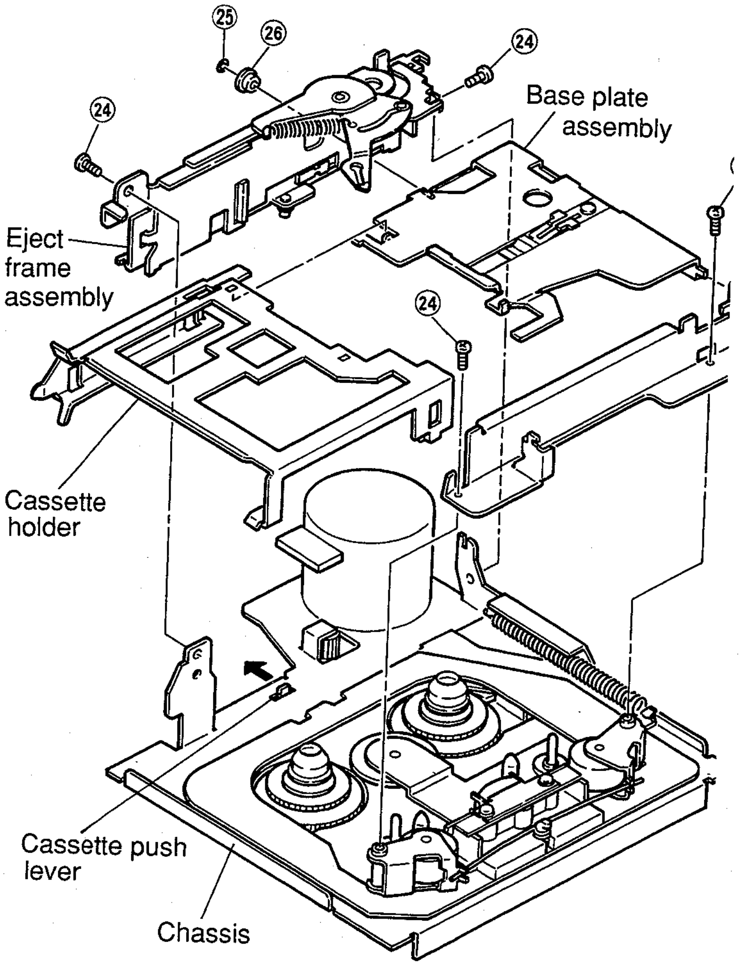

㉕
㉖
㉔
㉔
Base plate assembly
Eject frame assembly
㉔
Cassette holder
Cassette push lever
Chassis

Figure 17

c. Disassembly and assembly of the cassette holder

(1) Remove four screws ㉔ and remove the eject frame assembly and the frame holder as shown in Figure 17.

(2) Remove M1.2 lock washer ㉕ and plate base roller ㉖ and remove the cassette holder and the base plate assembly as shown in Figure 17.

(3) Remount them following the removal steps in the reverse order.

Notes: 1. When mounting the cassette holder and the base plate, insert the slider shaft into the eject arm and fix them turning the slider shaft in the direction indicated by the arrow in the figure. Make sure that the cassette holder and the base plate are in the cassette-in mode during this operation. (Refer to Figure 18).

2. When mounting the eject frame assembly, push the cassette push lever in the direction indicated by the arrow in the Figure 17.

3. When mounting the base plate assembly and the eject frame assembly, or when mounting the eject frame assembly to the chassis, do not apply excessive force to avoid deformations of the eject arm and the frame.

4. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

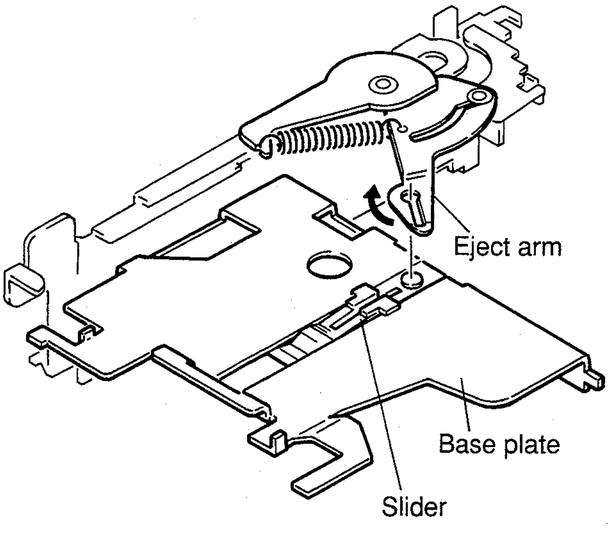


Figure 18

d. Replacement of the reels

(1) Remove M1.7 two lock washers ㉖ (Refer to figure 19).

(2) Move the select lever in the direction marked Ⓓ-1 in the Figure and remove the reel by gripping the reel gear as shown in Figure 19.

(3) After replacement, mount the new reels following the removal steps in the reverse order.

(4) After mounting, check the tape speed and the wow and flutter with test tape MTT-111.

Note: Since the reel is easily loosened if the cap is gripped, always handle it gripping the gear. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

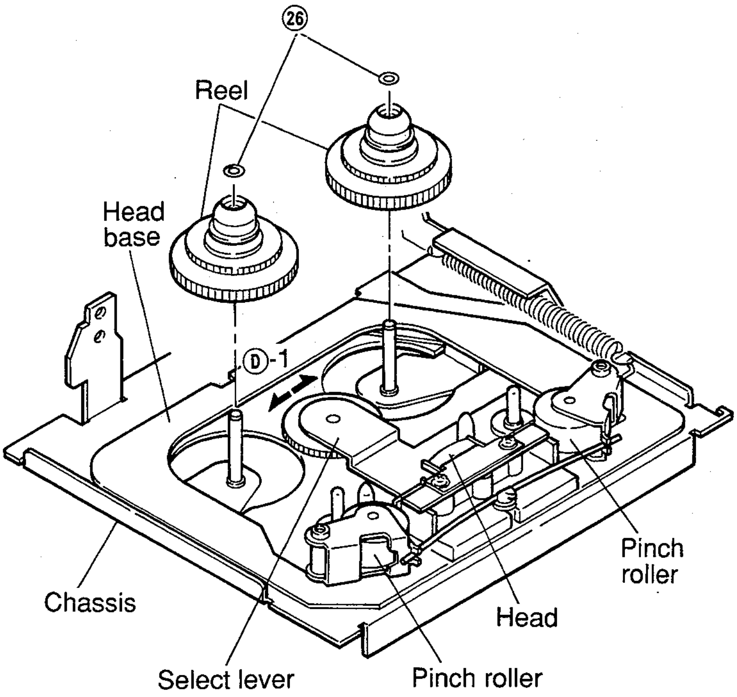


Figure 19

e. Replacement of the pinch rollers

(1) Remove pinch roller spring ㉗ as shown in Figure 20.

(2) Remove M3.1 two lock washers ㉘ and remove the pinch roller as shown in Figure 20.

(3) Mount the pinch rollers following the removal steps in the reverse order.
Apply insulation coating to the position Ⓓ-2 of the pinch roller as shown in Figure 20.

Note: Make sure that the pinch rollers are thoroughly fixed and that they are not deformed. Do not reuse used lock washers. Take care to avoid damage by piercing and tearing.

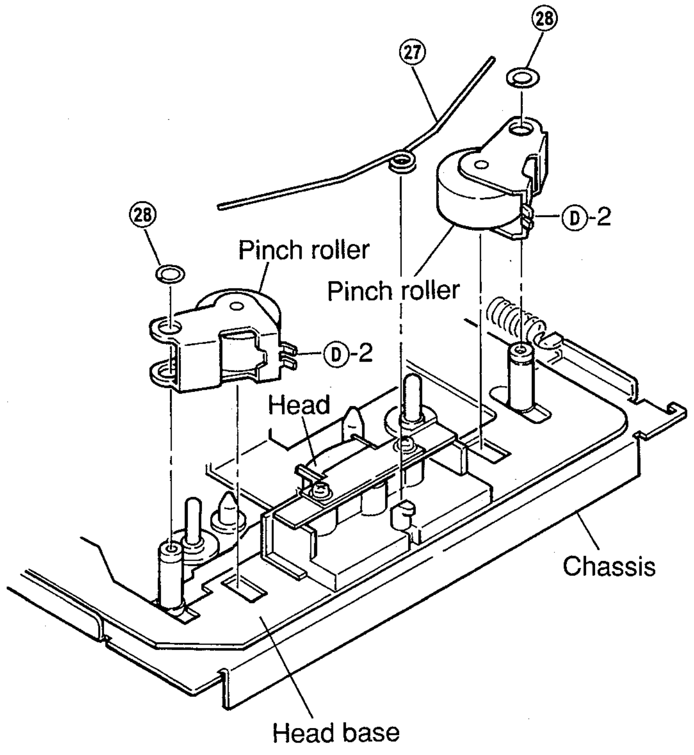

㉘
㉗
㉘
Ⓓ-2
Pinch roller
Pinch roller
Ⓓ-2
Head
Chassis
Head base

Figure 20

f. Replacement of the head

(1) After removing the pinch roller spring, remove two screws ㉙ as shown in Figure 21.

(2) Remove solder ㉚ and remove the head from the head P.C. board as shown in Figure 22.

(3) After replacement, mount the new head following the removal steps in the reverse order.

Notes: 1. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board. Make sure that the head P.C. board is not lifted.

2. Fasten the two screws with a fastening torque of 2.3 kg.cm. Note that the tension of the head spring can be decreased if the screws are fastened too strongly.

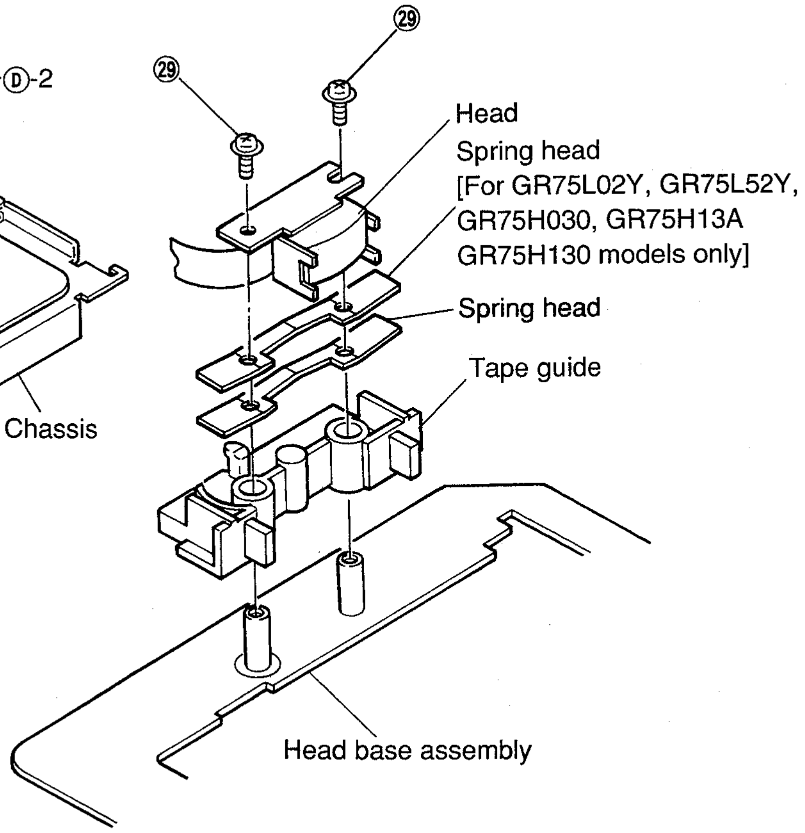

㉙
㉙
Head
Spring head
[For GR75L02Y, GR75L52Y, GR75H030, GR75H13A GR75H130 models only]
Spring head
Tape guide
Head base assembly

Figure 21

(4) Adjust the height of the head as shown in Figures 23, 24 and 25.

① Place the height adjustment gauge (AI-500) on the head base, and adjust the height so that the check bar fits in the tape head guide smoothly.

② When the check bar touches the top (or bottom) of the tape guide, insert a spacer (t 0.1 mm or polislider washer t 0.13 mm).
If necessary, remove the spacer.

Note: If you do not have a height gauge like described in (4)-①, run the tape at normal speed and adjust the height of the head and the tape head guide so that the tape does not curl.

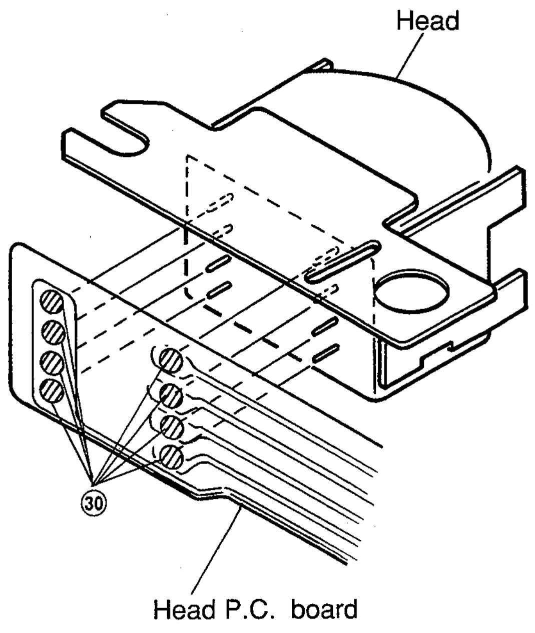

Head
㉚
Head P.C. board

Figure 22

(5) After having assembled the complete mechanism, adjust the angle of the head with test tape MTT-113C. (Refer to chapter "Adjustment of the head angle".) After the adjustment, apply the screw lock and fix the screws.

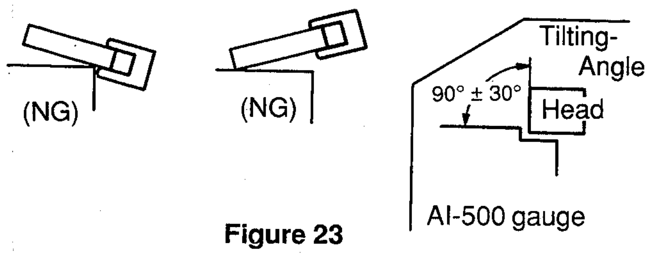

(NG)
(NG)
Tilting-Angle
90° ± 30°
Head
AI-500 gauge

Figure 23

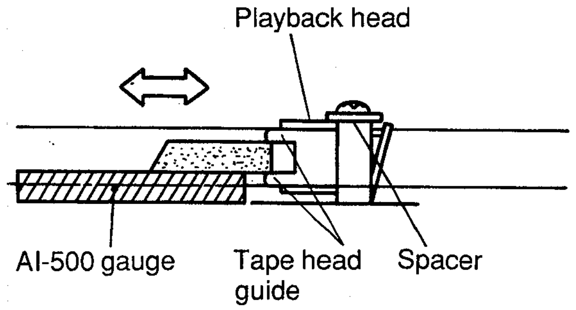
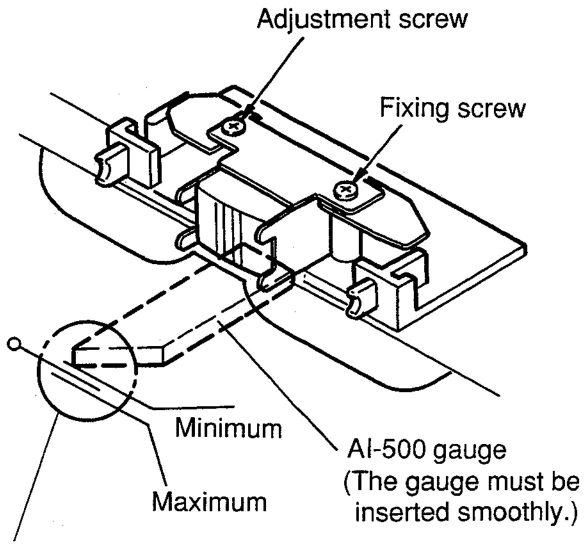

Playback head
AI-500 gauge
Tape head guide
Spacer

Figure 24

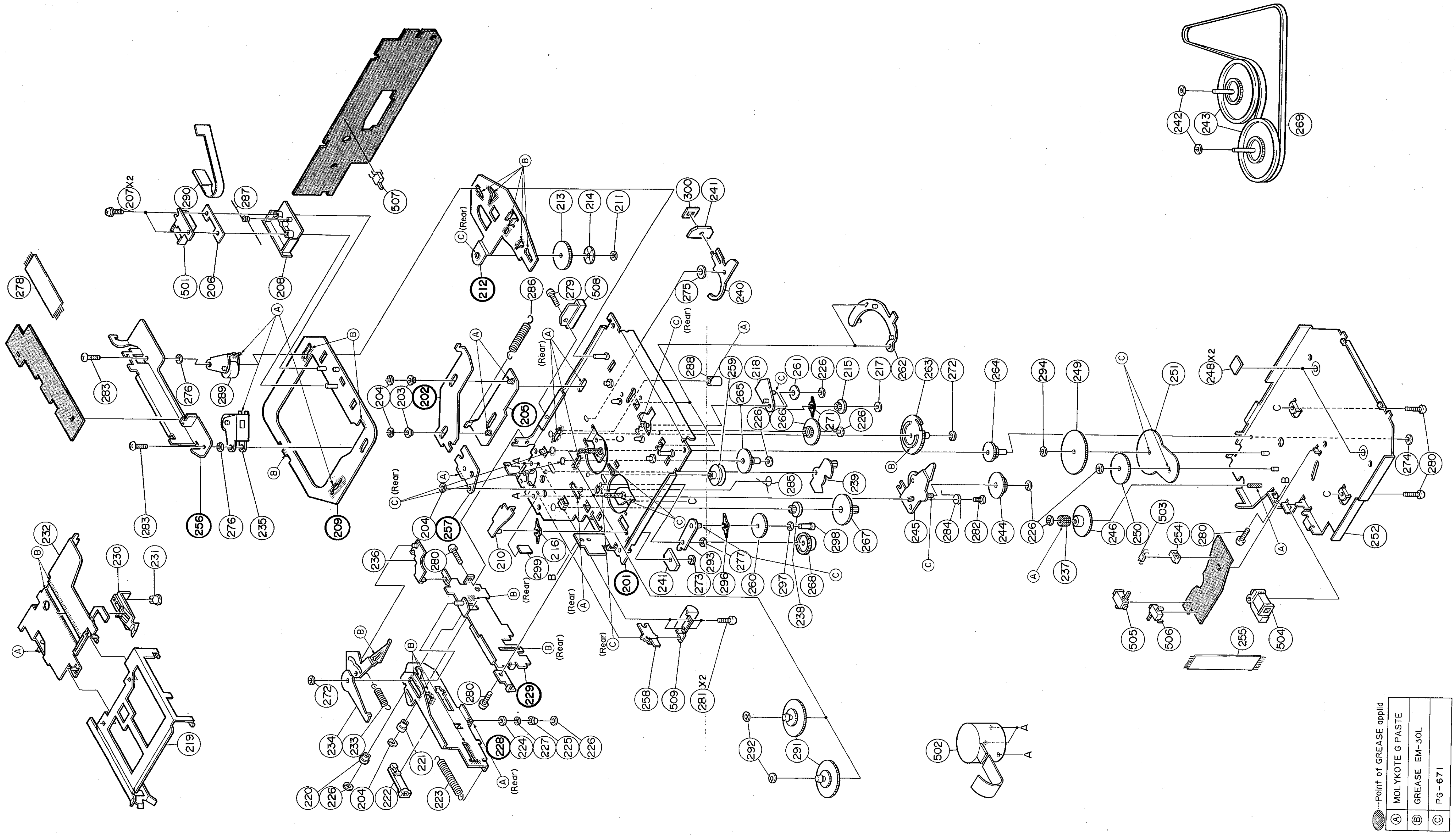

Adjustment screw
Fixing screw
Minimum
Maximum
AI-500 gauge
(The gauge must be inserted smoothly.)

The nosepiece of the gauge must be between the minimum and maximum positions.

Figure 25

Exploded View (GR75E Series) (1/4)

- **For GR75E010/01A/020 Models**


207X2
290
287
507
278
501
206
208
Ⓒ(Rear)
Ⓑ
213
214
211
212
300
241
275
240
286
279
508
Ⓐ
283
276
289
Ⓑ
204
203
202
205
(Rear) Ⓐ
Ⓒ(Rear)
288
259
218
261
226
215
217
262
263
272
264
294
249
Ⓒ
251
248X2
242
243
269
265
266
271
226
226
Ⓑ
285
239
283
256
276
235
209
Ⓒ(Rear)
204
257
245
284
282
244
226
246
250
503
254
280
252
274
280
Ⓐ
237
Ⓐ
Ⓒ
232
Ⓑ
230
231
Ⓐ
236
280
210
299
216
201
241
273
293
296
277
260
297
268
298
267
238
Ⓒ
505
506
255
504
219
Ⓑ(Rear)
Ⓐ(Rear)
Ⓑ(Rear)
Ⓒ(Rear)
Ⓑ
Ⓑ
272
234
233
280
229
228
224
227
225
226
220
226
204
222
221
223
Ⓐ(Rear)
258
509
281X2
292
291
502
A
A
◐ ...Point of GREASE applid
Ⓐ MOLYKOTE G PASTE
Ⓑ GREASE EM-30L
Ⓒ PG-671

Cassette Deck Assembly Parts List (GR75E Series) (1/4)

Note : The parts without parts list are not supplied.

Symbol No.	IN-dex	Part No.	Description
203	3-C	43A11072W01	Roller, Sub Head
204		04B41345P01	Washer, Lock(M1.2)
206	2-B	41A31756W01	Spring, Head
207	2-B	03S40019G03	Screw, F-Locks(M2x4)
208	2-B	43B12545W01	Tape, Guide
210	4-C	01A10206W01	Assy., Riv Lever R/F Sol
211	2-D	04B41345P29	Washer, Lock(M2.6)
213	2-D	44A10295W01	Gear, Sensor
214	2-D	14A10681W01	Reflector
215	3-E	44A30480W01	Gear, Planet
216	3-E	41A10097W02	Spring, Clutch
217	3-E	04B41345P35	Washer, Lock(M1.7)
218	3-E	01A30824W01	Assy., Riv Lever Reverse
● 219	4-B	07B40283W01	Holder, Cassette
■ 219	4-B	07B40283W01	Holder, Cassette
▲ 219	4-B	07B10074W01	Holder, Cassette
220	5-B	43A12583W01	Roller, Eject
221	5-C	43A63281F01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-C	41B10386W03	Spring, GR(Rack)
224	4-C	43A10121W01	Roller, Eject A
225	4-D	43A10360W01	Roller, Eject B
226		04B41345P11	Washer, Lock(M1.2)
227	4-D	43A12377W01	Roller, Eject C
230	4-A	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-A	01A10212W01	Assy.,Riv Plate Base
233	4-C	41B10386W01	Spring, Eject Arm
234	4-B	01A10148W01	Assy., Riv Eject Arm A
235	3-B	01B30863W02	Assy., Pinch Roller
236	4-C	45A10087W01	Lever Pack In SW
237	4-F	44A12975W01	Pinion, Eject
238	4-E	44A13617W01	Gear, Motor Idler(B)
239	3-E	01A10201W02	Assy., Riv Lever Pause
240	2-D	45A40725W01	Lever, Play Sol
241		76T10374W01	Chip
242	1-G	04S40075G05	Washer Polyslider(M2.1)
243	1-G	01A10368W01	Assy., Flywheel
244	3-F	44A10141W01	Gear, Eject Idler
245	3-E	01A10205W02	Assy., Riv Lever Clutch A
246	3-F	44A10145W01	Gear, Eject
248	3-G	43A41656W01	Spacer, UHMW
249	3-F	44A11063W01	Gear, Bottom A
250	3-F	44A11064W01	Gear, Bottom B
251	3-G	34A11122W02	Washer, GR
252	3-H	01A10210W02	Assy., Riv. Cover Bottom
254	3-G	15B11065W01	Guide, Photo
255	4-G	30T15126W01	Wire, PC Sensor(7P)
258	4-D	45A10101W01	Lever, Eject Sol
259	3-D	49A10131W01	Pulley, Idler
260	4-E	44A10133W01	Gear, Take Up
261	3-E	44A10134W01	Gear, Sun
262	3-E	44B10135W01	Gear, Fix
263	3-E	44B30484W01	Gear, Pause
264	3-F	44A10137W01	Gear, Pause Idler A
265	3-D	44A10379W01	Gear, Pause Idler B
266	3-E	44A10138W01	Gear, Reverse Idler
267	3-E	44A10139W01	Gear, Motor Idler
268	4-E	44A11062W01	Gear, Reel Idler
269	1-G	42A10380W01	Belt, GR
271	3-E	41A30475W01	Spring, Clutch
272		04B41345P15	Washer, Lock(M1.2)
273	4-D	04B41345P02	Washer, Lock(M1.7)
274	3-H	04B41345P17	Washer, Lock(M1)
275	2-D	04B41345P30	Washer, Lock(M3.1)
276		04B41345P32	Washer, Lock(M3.1)
277	4-E	04B41345P37	Washer, Lock(M2.1)
278	2-A	30T15126W02	Wire, PC Joint 7P
279	2-D	03S44205G78	Screw, Pan(M2x6)
280		03S44205G30	Screw, Pan(M2.6x4)
281	4-D	03S72235F53	Screw, Pan(M2x3.3)
282	3-F	03A12132W02	Screw, Eject Clutch(M2x2.3)
283		03S43997P64	Screw, Pan(M1.7x3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	3-E	41A10385W01	Spring, Cas Push
286	2-C	41B10386W02	Spring, Sub Head
287	2-B	41A10387W01	Spring, Pinch Roller
288	3-D	43A12719W01	Roller, Pause
289	3-B	01B30863W01	Assy., Pinch Roller
290	2-B	84T25151W01	Head P.C. Board
291	4-E	01T35403W01	Assy., Reel
292	4-E	04B41345P12	Washer, Lock(M1.7)
293	4-D	01A30161W01	Assy., Riv Lever Take Up
294	3-F	04B41345P34	Washer Lock(M1.2)
296	4-D	41A40910W01	Spring, Clutch
297	4-E	43A41543W01	Washer, Som(M1.2)
298	3-E	47A41458W01	Pin, Take Up
299	4-C	43A40388W01	Spacer, Polyslider
300	2-D	43A41744W01	Lock, Solenoid

Miscellaneous

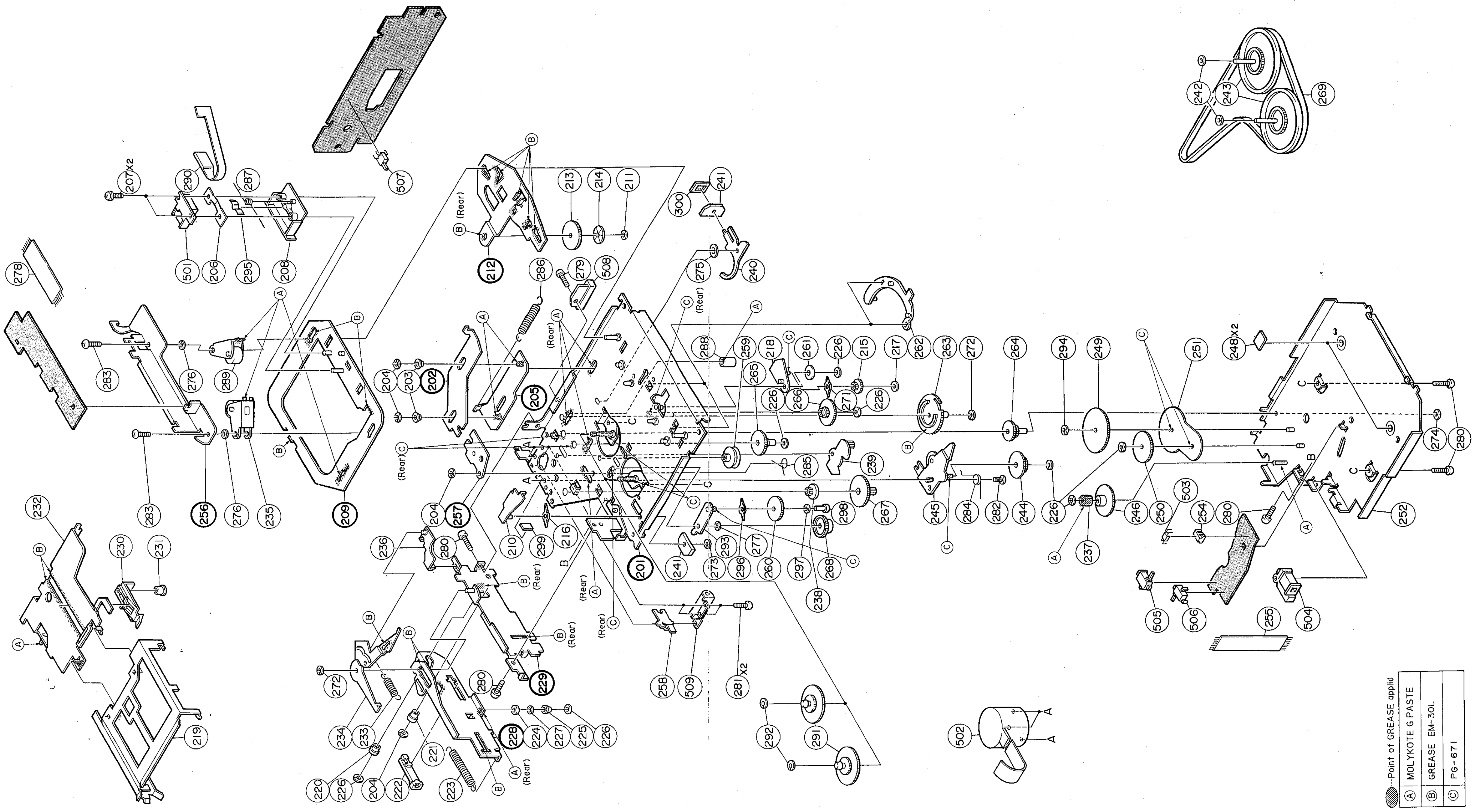
Symbol No.	IN-dex	Part No.	Description
● 501	2-B	88T15971W01	Head
■ 501	2-B	88T10373W01	Head
▲ 501	2-B	88T10373W01	Head
502	4-E	01V11500W64	Assy., Motor(Main, 13.2V-80mA)
503	3-G	51T15144W01	Sensor, Photo
504	4-G	01T10371W01	R/F Sol. Assy.
505	4-F	40T15382W01	SW., Detector(Pack Down)
506	4-G	40T15382W01	SW., Detector(Metal)
507	2-C	40T15222W01	SW., Detector (Pack In)
508	2-D	01T15249W01	Assy., Play Solenoid
509	4-D	01T10369W02	Assy., Eject Solenoid

Notes: ● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only Others ; Common

Notes: ● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only Others ; Common

Exploded View (GR75L Series) (2/4)

- **For GR75L020/02A Models**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▨ ···Point of GREASE applid

Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR75L Series) (2/4)

Symbol No.	IN-dex	Part No.	Description
203	3-C	43A11072W01	Roll, Sub Head
204		04B41345P01	Washer, Lock(M1.2)
206	2-B	41A31756W01	Spring, Head
207	2-B	03S40019G03	Screw, F-Locks(M2x4)
208	2-B	43B12545W01	Tape, Guide
210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
211	2-D	04B41345P29	Washer, Lock(M2.6)
213	2-D	44A10295W01	Gear, Sensor
214	2-D	14A10681W01	Reflector
215	3-E	44A30480W01	Gear, Planet
216	3-E	41A10097W02	Spring, Clutch
217	3-E	04B41345P35	Washer, Lock(M1.7)
218	3-E	01A30824W01	Assy., Riv Lever Reverse
219	4-B	07B40283W01	Holder, Cassette
220	5-B	43A12583W01	Roller, Eject
221	5-C	43A63281F01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-C	41B10386W03	Spring, GR(Rack)
224	4-C	43A10121W01	Roller, Eject(A)
225	4-D	43A10360W01	Roller, Eject(B)
226		04B41345P11	Washer, Lock(M1.2)
227	4-D	43A12377W01	Roller, Eject(C)
230	4-A	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-A	01A10212W01	Assy., Riv Plate Base
233	4-C	41B10386W01	Spring, Eject Arm
234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
235	3-B	01B30863W02	Assy., Pinch Roller
236	4-C	45A10087W01	Lever, Pack In SW.
237	4-F	44A20314W01	Pinion, Eject
238	4-E	44A13617W01	Gear, Motor Idler(B)
239	3-E	01A10201W02	Assy., Riv Lever Pause
240	2-E	45A40725W01	Lever, Play Sol
241		76T10374W01	Chip
242	1-G	04S40075G05	Washer, Polyslider(M2.1)
243	1-G	01A10368W01	Assy., Flywheel
244	3-F	44A10141W01	Gear, Eject Idler
245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
246	3-F	44A10145W01	Gear, Eject
248	3-G	43A41656W01	Spacer, UHMW

Notes : ◆ ; For GR75L020 model only ○ ; For GR75L02A model only
Others ; Common

Note : The parts without parts list are not supplied.

Symbol No.	IN-dex	Part No.	Description
249	3-F	44A11063W01	Gear, Bottom(A)
250	3-F	44A11064W01	Gear, Bottom(B)
251	3-G	34A11122W02	Washer, GR
252	3-H	01A10210W02	Assy., Riv. Cover Bottom
254	3-G	15B11065W01	Guide, Photo
255	4-G	30T15126W01	Wire, PC Sensor(7P)
258	4-D	45A10101W01	Lever, Eject Sol.
259	3-D	49A10131W01	Pulley, Idler
260	4-E	44A10133W01	Gear, Take Up
261	3-E	44A10134W01	Gear, Sun
262	3-E	44B10135W01	Gear, Fix
263	3-E	44B21670W01	Gear, Pause
264	3-F	44A10137W01	Gear, Pause Idler(A)
265	3-D	44A10379W01	Gear, Pause Idler(B)
266	3-E	44A10138W01	Gear, Reverse Idler
267	3-E	44A10139W01	Gear, Motor Idler
268	4-E	44A11062W01	Gear, Reel Idler
269	1-G	42A10380W01	Belt, GR
271	3-E	41A30475W01	Spring, Clutch
272	3-F	04B41345P15	Washer, Lock(M1.2)
273	4-D	04B41345P02	Washer, Lock(M1.7)
274	3-H	04B41345P17	Washer, Lock(M1)
275	2-D	04B41345P30	Washer, Lock(M3.1)
276		04B41345P32	Washer, Lock(M3.1)
277	4-E	04B41345P37	Washer, Lock(M2.1)
278	2-A	30T15126W02	Wire, PC Joint 7P
279	2-D	03S44205G78	Screw, Pan(M2x6)
280		03S44205G30	Screw, Pan(M2.6x4)
281	4-D	03S72235F53	Screw, Pan(M2x3.3)
282	3-F	03A12132W02	Screw, Eject Clutch(M2x2.3)
283		03S43997P64	Screw, Pan(M1.7x3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	3-E	41A10385W01	Spring, Cas. Push
286	2-C	41B10386W02	Spring, Sub Head
287	2-B	41A10387W01	Spring, Pinch Roller
288	3-D	43A12719W01	Roller, Pause
289	3-B	01B30863W01	Assy., Pinch Roller
290	2-B	84T25151W01	Head P.C. Board
291	4-E	01T35403W02	Assy., Reel
292	4-E	04B41345P12	Washer, Lock(M1.7)

Symbol No.	IN-dex	Part No.	Description
293	4-D	01A30161W01	Assy., Riv Lever Take Up
294	3-F	04B41345P34	Washer, Lock(M1.2)
295	2-B	26A20537W01	Shield, Plate
296	4-D	41A40910W01	Spring, Clutch
297	4-E	43A41543W01	Washer, Som(M1.2)
298	3-E	47A41458W01	Pin, Take Up
299	3-D	43A40388W01	Spacer, Polyslider
300	2-D	43A41744W01	Lock, Solenoid

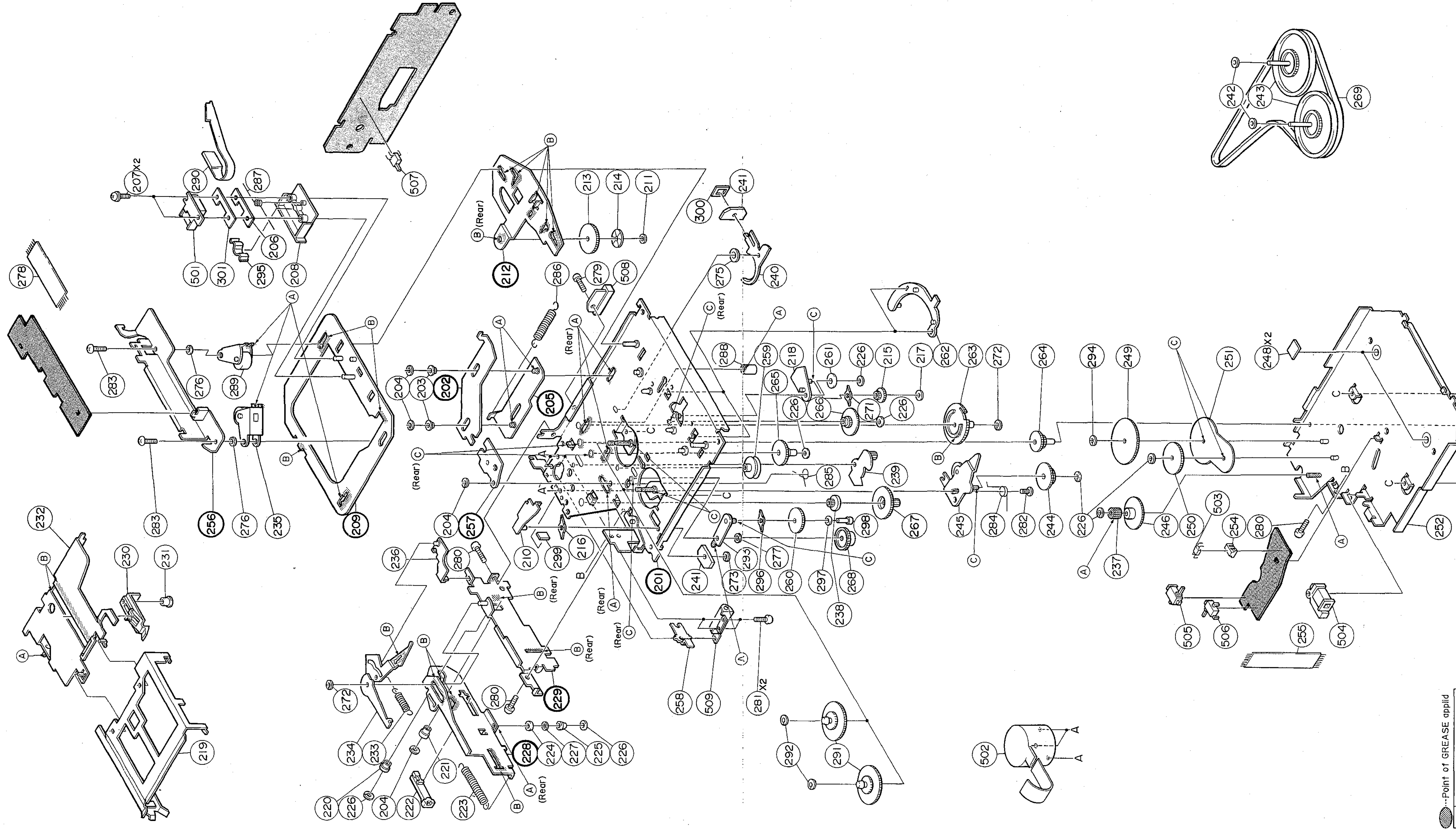
Miscellaneous

Symbol No.	IN-dex	Part No.	Description
501	2-B	88T15971W01	Head
◆ 502	4-E	01V23900W60	Assy., Motor(13.2V-105mA)
○ 502	4-E	01V43400W37	Assy., Motor(13.2V-88mA)
503	3-G	51T15144W01	Sensor, Photo
504	4-G	01T10371W01	R/F Sol. Assy
505	4-F	40T15382W01	SW., Detector (Pack Down)
506	4-G	40T15382W01	SW., Detector (Metal)
507	2-C	40T15222W01	SW., Detector (Pack In)
508	2-D	01T15249W01	Assy., Play Solenoid
509	4-D	01T10369W02	Assy., Eject Solenoid

Notes : ◆ ; For GR75L020 model only ○ ; For GR75L02A model only
Others ; Common

Exploded View (GR-Y Series) (3/4)

- **For GR75L02Y/52Y Model**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Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR-Y Series) (3/4)

Note : The parts without parts list are not supplied.

	Symbol No.	IN-dex	Part No.	Description
	203	3-C	43A11072W01	Roll, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A31756W01	Spring, Head
	207	2-B	03S40019G03	Screw, F-Locks(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A10681W01	Reflector
	215	3-E	44A30480W01	Gear, Planet
	216		41A10097W02	Spring, Clutch
	217	3-E	04B41345P35	Washer, Lock(M1.7)
	218	3-E	01A30824W01	Assy., Riv Lever Reverse
	219	4-B	07B40283W01	Holder, Cassette
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
	223	5-C	41B10386W03	Spring, GR(Rack)
	224	4-C	43A10121W01	Roller, Eject(A)
	225	4-D	43A10360W01	Roller, Eject(B)
	226		04B41345P11	Washer, Lock(M1.2)
	227	4-D	43A12377W01	Roller, Eject(C)
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
	232	4-A	01A10212W01	Assy., Riv Plate Base
	233	4-C	41B10386W01	Spring, Eject Arm
	234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
	235	3-B	01B30863W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever, Pack In SW.
	237	4-F	44A20314W01	Pinion, Eject
	238	4-E	44A13617W01	Gear, Motor Idler(B)
	239	3-E	01A10201W02	Assy., Riv Lever Pause
	240	2-D	45A40725W01	Lever, Play Sol.
	241		76T10374W01	Chip
	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
	243	1-G	01A10368W01	Assy., Flywheel
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
	246	3-F	44A10145W01	Gear, Eject
	248	3-G	43A41656W01	Spacer, UHMW

	Symbol No.	IN-dex	Part No.	Description
	249	3-F	44A11063W01	Gear, Bottom(A)
	250	3-F	44A11064W01	Gear, Bottom(B)
	251	3-G	34A11122W02	Washer, GR
	252	3-H	01A10210W02	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol.
	259	3-D	49A10131W01	Pulley, Idler
	260	4-E	44A10133W01	Gear, Take Up
	261	3-E	44A10134W01	Gear, Sun
	262	3-E	44B10135W01	Gear, Fix
	263	3-E	44B21670W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler(A)
	265	3-D	44A10379W01	Gear, Pause Idler(B)
	266	3-E	44A10138W01	Gear, Reverse Idler
	267	3-E	44A10139W01	Gear, Motor Idler
	268	4-E	44A11062W01	Gear, Reel Idler
	269	1-G	42A10380W01	Belt, GR
	271	3-E	41A30475W01	Spring, Clutch
	272	3-F	04B41345P15	Washer, Lock(M1.2)
	273		04B41345P02	Washer, Lock(M1.7)
	274	3-H	04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276	3-B	04B41345P32	Washer, Lock(M3.1)
	277	4-E	04B41345P37	Washer, Lock(M2.1)
	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F53	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch(M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cas. Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause
	289	3-B	01B30863W01	Assy., Pinch Roller
	290	2-B	84T35271W01	Head P.C. Board
	291	4-E	01T35403W02	Assy., Reel
	292	4-E	04B41345P12	Washer, Lock(M1.7)

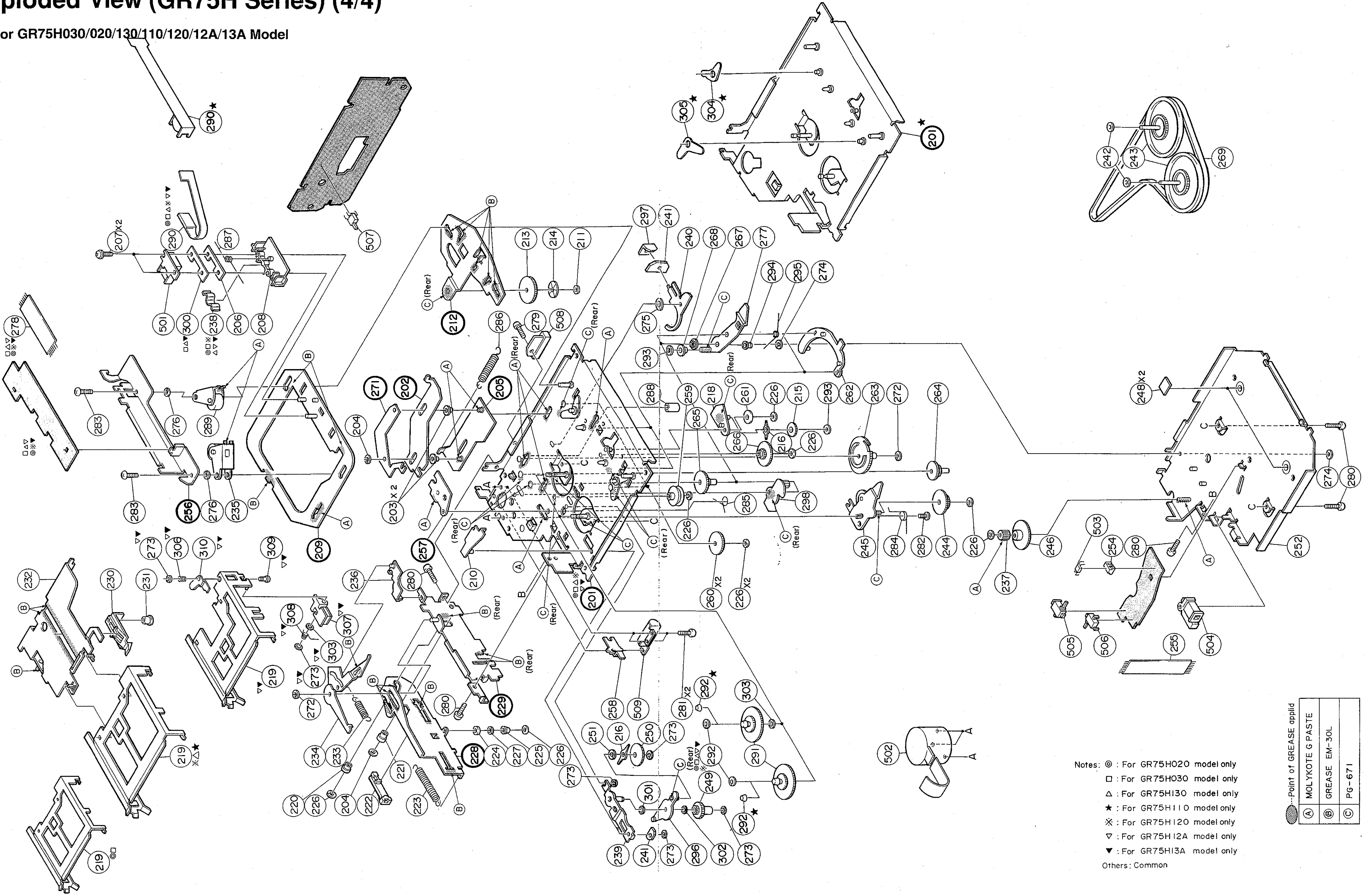
Notes:☆ ; For GR75L02Y model only ◇ ; For GR75L52Y model only
Others ; Common

	Symbol No.	IN-dex	Part No.	Description
	293	4-D	01A30161W01	Assy., Riv Lever Take Up
	294	3-F	04B41345P34	Washer, Lock(M1.2)
	295	2-B	26A20537W01	Shield, Plate
	296	4-D	41A40910W01	Spring, Clutch
	297	4-E	43A41543W01	Washer, Som(M1.2)
	298	3-E	47A41458W01	Pin, Take Up
	299	3-C	43A40388W01	Spacer, Polyslider
	300	2-D	43A41744W01	Lock, Solenoid
	301	2-B	41A41416W01	Spring, Head
Miscellaneous				
	501	2-B	88T15971W01	Head
☆	502	4-E	01V23900W60	Assy., Motor(13.2V-105mA)
◇	502	4-E	01V44200W73	Assy., Motor(13.2V-80mA)
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy
	505	4-F	40T15382W01	SW., Detector (Pack Down)
	506	4-G	40T15382W01	SW., Detector (Metal)
	507	2-C	40T15222W01	SW., Detector (Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Notes:☆ ; For GR75L02Y model only ◇ ; For GR75L52Y model only
Others ; Common

Exploded View (GR75H Series) (4/4)

- **For GR75H030/020/130/110/120/12A/13A Model**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Notes: ◎ : For GR75H020 model only
□ : For GR75H030 model only
△ : For GR75H130 model only
★ : For GR75H110 model only
※ : For GR75H120 model only
▽ : For GR75H12A model only
▼ : For GR75H13A model only
Others : Common

▨ ...Point of GREASE applid

Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR75H Series) (4/4)

Note : The parts without parts list are not supplied.

Symbol No.		IN-dex	Part No.	Description
◎	203	3-C	43A51119W01	Roller, Sub Head
□	203	3-C	43A51119W01	Roller, Sub Head
※	203	3-C	43A31453W01	Roller, Sub Head
△	203	3-C	43A31453W01	Roller, Sub Head
▽	203	3-C	43A31453W01	Roller, Sub Head
▼	203	3-C	43A31453W01	Roller, Sub Head
★	203	3-C	43A31453W01	Roller, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A31756W01	Spring, Head
	207	2-A	03A38021W01	Screw, Flange(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A30462W01	Assy., Riv Lever R/F Sol
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A58039W01	Reflector
	215	3-E	44A30480W01	Gear, Planet
	216		41A30475W01	Spring, Clutch
	218	3-E	01A30824W01	Assy., Riv Lever Reverse
◎	219	5-A	07B40283W01	Holder, Cassette
□	219	5-A	07B40283W01	Holder, Cassette
△	219	5-B	07B40012W01	Holder, Cassette
※	219	5-B	07B40012W01	Holder, Cassette
★	219	5-B	07B40012W01	Holder, Cassette
▽	219	4-B	01A51158W01	Assy., Riv Cassete Holder
▼	219	4-B	01A51158W01	Assy., Riv Cassete Holder
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
◎	223	5-C	41B10386W03	Spring, GR(Rack)
□	223	5-C	41B10386W03	Spring, GR(Rack)
△	223	5-C	41B10386W04	Spring, GR(Rack)
★	223	5-C	41B10386W04	Spring, GR(Rack)
※	223	5-C	41B10386W04	Spring, GR(Rack)
▽	223	5-C	41B10386W04	Spring, GR(Rack)
▼	223	5-C	41B10386W04	Spring, GR(Rack)
	224	5-C	43A10121W01	Roller, Eject A
	225	5-D	43A10360W01	Roller, Eject B
	226		04B41345P11	Washer, Lock(M1.2)
	227	5-D	43A12377W01	Roller, Eject C
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
◎	232	4-A	01A10212W01	Assy., Riv Plate Base
□	232	4-A	01A10212W01	Assy., Riv Plate Base
△	232	4-A	01A40024W01	Assy., Riv Plate Base
★	232	4-A	01A40024W01	Assy., Riv Plate Base
※	232	4-A	01A40024W01	Assy., Riv Plate Base
▽	232	4-A	01A40024W01	Assy., Riv Plate Base
▼	232	4-A	01A40024W01	Assy., Riv Plate Base
◎	233	5-C	41B10386W01	Spring, Eject Arm
□	233	5-C	41B10386W01	Spring, Eject Arm
△	233	5-C	41B63283F11	Spring
★	233	5-C	41B63283F11	Spring
※	233	5-C	41B63283F11	Spring
▽	233	5-C	41B63283F11	Spring
▼	233	5-C	41B63283F11	Spring
◎	234	5-C	01A30883W01	Assy., Riv Eject Arm B
□	234	5-C	01A30883W01	Assy., Riv Eject Arm B
△	234	5-C	01A40021W01	Assy., Riv Eject Arm D
★	234	5-C	01A40021W01	Assy., Riv Eject Arm D
※	234	5-C	01A40021W01	Assy., Riv Eject Arm D
▽	234	5-C	01A40021W01	Assy., Riv Eject Arm D
▼	234	5-C	01A40021W01	Assy., Riv Eject Arm D
	235	3-B	01B30863W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever Pack In SW
	237	4-F	44A20314W01	Pinion, Eject
◎	238	2-B	26A20537W01	Shield, plate
□	238	2-B	26A20537W01	Shield, plate
※	238	2-B	26A20537W01	Shield, plate
△	238	2-B	26A20537W01	Shield, plate
▽	238	2-B	26A20537W01	Shield, plate
▼	238	2-B	26A20537W01	Shield, plate
	239	5-D	01A40881W01	Assy., Riv RF Link
	240	2-D	45A40725W01	Lever, Play Sol.
	241		76T10374W01	Chip
◎	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
□	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
※	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
△	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
▽	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
▼	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
★	242	1-G	04T55449W01	Washer, Teflon(M2.1)
◎	243	1-G	01A30488W01	Assy., Flywheel
□	243	1-G	01A30488W01	Assy., Flywheel
※	243	1-G	01A30488W01	Assy., Flywheel
△	243	1-G	01A30488W01	Assy., Flywheel
▽	243	1-G	01A30488W01	Assy., Flywheel
▼	243	1-G	01A30488W01	Assy., Flywheel
★	243	1-G	01A50658W01	Assy., Flywheel
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W02	Assy., Riv Lever Clutch A

Notes:◎ ; For GR75H020 model only □ ; For GR75H030 model only
▽ ; For GR75H12A model only △ ; For GR75H130 model only
★ ; For GR75H110 model only ※ ; For GR75H120 model only
▼ ; For GR75H13A model only Others ; Common

Note : The parts without parts list are not supplied.

Symbol	No.	IN-dex	Part No.	Description
	246	3-F	44A10145W01	Gear, Eject
	248	3-G	43A41656W01	Spacer, UHMW
	249	5-E	44A30481W01	Gear, RF Idler
	250	4-D	44A30483W01	Gear, RF
	251	4-D	04S40075G58	Washer, Polyslider(M2.1)
	252	3-H	01A30463W01	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol
	259	3-D	49A30476W01	Pulley, Idler
	260	4-E	44A30482W01	Gear, Take Up
	261	3-E	44A30478W01	Gear, Sun
◎	262	3-E	44B10135W01	Gear, Fix
□	262	3-E	44B10135W01	Gear, Fix
★	262	3-E	44B10135W01	Gear, Fix
※	262	3-E	44B10135W01	Gear, Fix
△	262	3-E	44B10135W01	Gear, Fix
▼	262	3-E	44B10135W01	Gear, Fix
▽	262	3-E	44B10135W02	Gear, Fix
	263	3-E	44B30484W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler A
	265	3-E	44A30486W01	Gear, Pause Idler B
	266	3-E	44A30479W01	Gear, Reverse Idler
	267	2-E	44A30485W01	Gear, Motor Idler
	268	2-E	44A30487W01	Gear, Motor Clutch
	269	1-G	42A31850W01	Belt, GR
	272		04B41345P15	Washer, Lock(M1.2)
	273		04B41345P02	Washer, Lock(M1.7)
	274		04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276		04B41345P32	Washer, Lock(M3.1)
	277	2-E	01A30464W01	Assy., Riv Play Clutch
◎	278	2-A	30T15126W02	Wire, PC Joint 7P
□	278	2-A	30T15126W02	Wire, PC Joint 7P
※	278	2-A	30T15126W02	Wire, PC Joint 7P
△	278	2-A	30T15126W02	Wire, PC Joint 7P
▽	278	2-A	30T15126W02	Wire, PC Joint 7P
▼	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F53	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch(M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cassette Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause
	289	3-B	01B30863W01	Assy., Pinch Roller
◎	290	2-B	84T25151W01	Head P.C. Board
※	290	2-B	84T25151W01	Head P.C. Board
▽	290	2-B	84T25151W01	Head P.C. Board
□	290	2-B	84T35271W01	Head P.C. Board
△	290	2-B	84T35271W01	Head P.C. Board
▼	290	2-B	84T35271W01	Head P.C. Board
★	290	1-B	84T45462W01	Head P.C. Board
◎	291	5-E	01T35403W01	Assy., Reel
□	291	5-E	01T35403W01	Assy., Reel
※	291	5-E	01T35403W01	Assy., Reel
△	291	5-E	01T35403W01	Assy., Reel
▽	291	5-E	01T35403W01	Assy., Reel
▼	291	5-E	01T35403W01	Assy., Reel
★	291	5-E	01T45062W01	Assy., Reel
◎	292	5-E	04B41345P12	Washer, Lock(M1.7)
□	292	5-E	04B41345P12	Washer, Lock(M1.7)
※	292	5-E	04B41345P12	Washer, Lock(M1.7)
△	292	5-E	04B41345P12	Washer, Lock(M1.7)
▽	292	5-E	04B41345P12	Washer, Lock(M1.7)
▼	292	5-E	04B41345P12	Washer, Lock(M1.7)
★	292		49A40718W01	Reel, Cap
	293		04B41345P35	Washer, Lock(M1.7)
	294	2-E	43A30827W01	Spacer, Motor Idler
	295	2-E	41A30490W01	Spring, Play Clutch
	296	5-E	01A40882W01	Assy., Riv Lever RF
	297	2-D	43A41744W01	Lock, Solenoid
	298	3-E	01A10201W02	Assy, Riv Lever Pause
□	300	2-B	41A41416W01	Spring, Head
△	300	2-B	41A41416W01	Spring, Head
▼	300	2-B	41A41416W01	Spring, Head
	301	5-D	04S40075G63	Washer, Polyslider(M2.1)
	302	5-E	04S40075G62	Washer, Polyslider(M2.1)
	303		04S40075G05	Washer, Polyslider(M2.1)
★	304	1-E	01A50659W01	Assy., Riv Pinch Roller(N)
★	305	1-E	01A50660W01	Assy., Riv Pinch Roller(R)
▽	306	3-B	41A50970W01	Spring, Push Holder
▼	306	3-B	41A50970W01	Spring, Push Holder
▽	307	4-C	01A51160W01	Assy., Link Felt Guide
▼	307	4-C	01A51160W01	Assy., Link Felt Guide
▽	308	4-B	41A50969W01	Spring, Holder
▼	308	4-B	41A50969W01	Spring, Holder

Notes:◎ ; For GR75H020 model only　□ ; For GR75H030 model only　★ ; For GR75H110 model only　※ ; For GR75H120 model only
▽ ; For GR75H12A model only　△ ; For GR75H130 model only　▼ ; For GR75H13A model only　Others ; Common

Note : The parts without parts list are not supplied.

Symbol	No.	IN-dex	Part No.	Description
▽	309	3-B	46A50946W01	Stud, Holder Cassete
▼	309	3-B	46A50946W01	Stud, Holder Cassete
▽	310	3-B	01A51159W01	Assy., Riv Lever Push Holder
▼	310	3-B	01A51159W01	Assy., Riv Lever Push Holder
			Miscellaneous	
◎	501	2-B	88T15971W02	Head
※	501	2-B	88T15971W02	Head
▽	501	2-B	88T15971W02	Head
□	501	2-B	88T35406W01	Head
△	501	2-B	88T35406W01	Head
▼	501	2-B	88T35406W01	Head
★	501	2-B	88T10373W01	Head
◎	502	5-F	01V41100W72	Assy., Motor(11.5v-85mA)
□	502	5-F	01V41100W72	Assy., Motor(11.5v-85mA)
△	502	5-F	01V41100W72	Assy., Motor(11.5v-85mA)
▼	502	5-F	01V41100W72	Assy., Motor(11.5v-85mA)
▽	502	5-F	01V51800W42	Assy., Motor(13.2V-105mA)
※	502	F-5	01V51800W42	Assy., Motor(13.2V-105mA)
★	502	F-5	01V53200W99	Assy., Motor(13.2V-105mA)
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy.
	505	4-F	40T15382W01	SW., Detector(Pack Down)
	506	4-G	40T15382W01	SW., Detector(Metal)
	507	2-C	40T15222W01	SW., Detector(Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Symbol	No.	IN-dex	Part No.	Description

Notes: ◎ ; For GR75H020 model only　□ ; For GR75H030 model only
▽ ; For GR75H12A model only　△ ; For GR75H130 model only

★ ; For GR75H110 model only　※ ; For GR75H120 model only
▼ ; For GR75H13A model only　Others ; Common

ALPINE ELECTRONICS INC.
Tokyo Office: 1-1-8 Nishi Gotanda,
Shinagawa-ku, Tokyo, Japan 141
Phone 03-3494-1101, Telex 8927-61

ALPINE ELECTRONICS OF AMERICA, INC.
19145 Gramercy Place
Torrance, California 90501
Phone 213-326-8000

ALPINE ELECTRONICS OF CANADA, INC.
605 Alden RD. Markham,
Ontario L3R 3L5 Canada
Phone 416-475-7280, Telex 06-986789

ALPINE ELECTRONICS GmbH
Brandenburger Strasse 2-6
D-4030, Ratingen F.R. Germany
Tel. 001-49-2102-4550, Telex 8589157

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68P20504W07

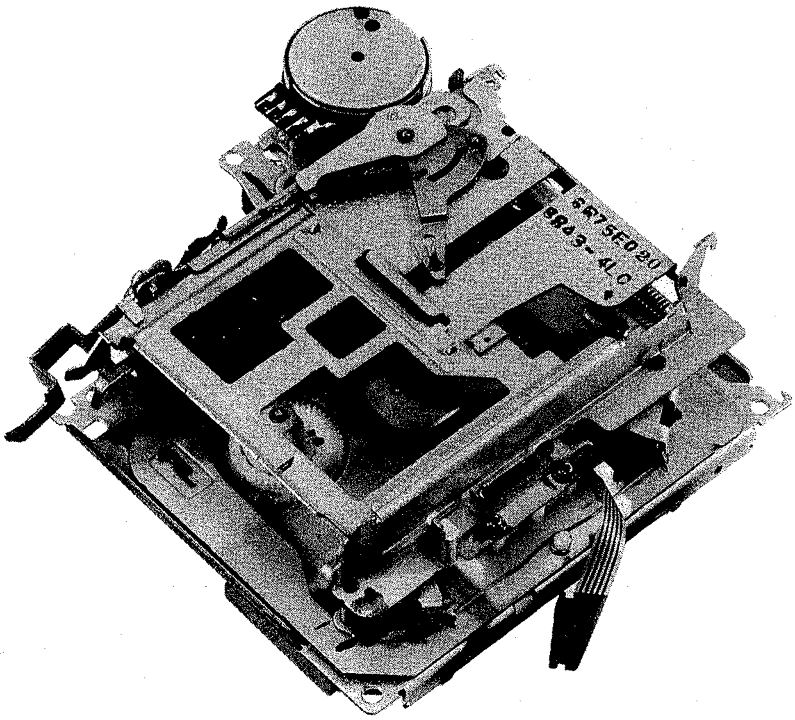
ALPINE®

SERVICE MANUAL

Cassette Deck Mechanism

ADDENDUM & REVISED (VII)

- This manual is described on GR75H12H only. The GR75H12H is developed from GR75H SERIES. For information that is not mentioned in this service manual, refer to the Service Manual • GR/GR-Y SERIES - ADDENDUM & REVISED (VI) (68P20504W07).
- 当マニュアルはGR75H12Hについてのみ記載してます。又、GR75Hシリーズがベースモデルとなってますので、相違部分のみを記載してあります。
詳細については、GR/GR-Yシリーズ (改訂・追補版 - VI) (68P20505W07)を参照願います。



GR/GR-Y SERIES

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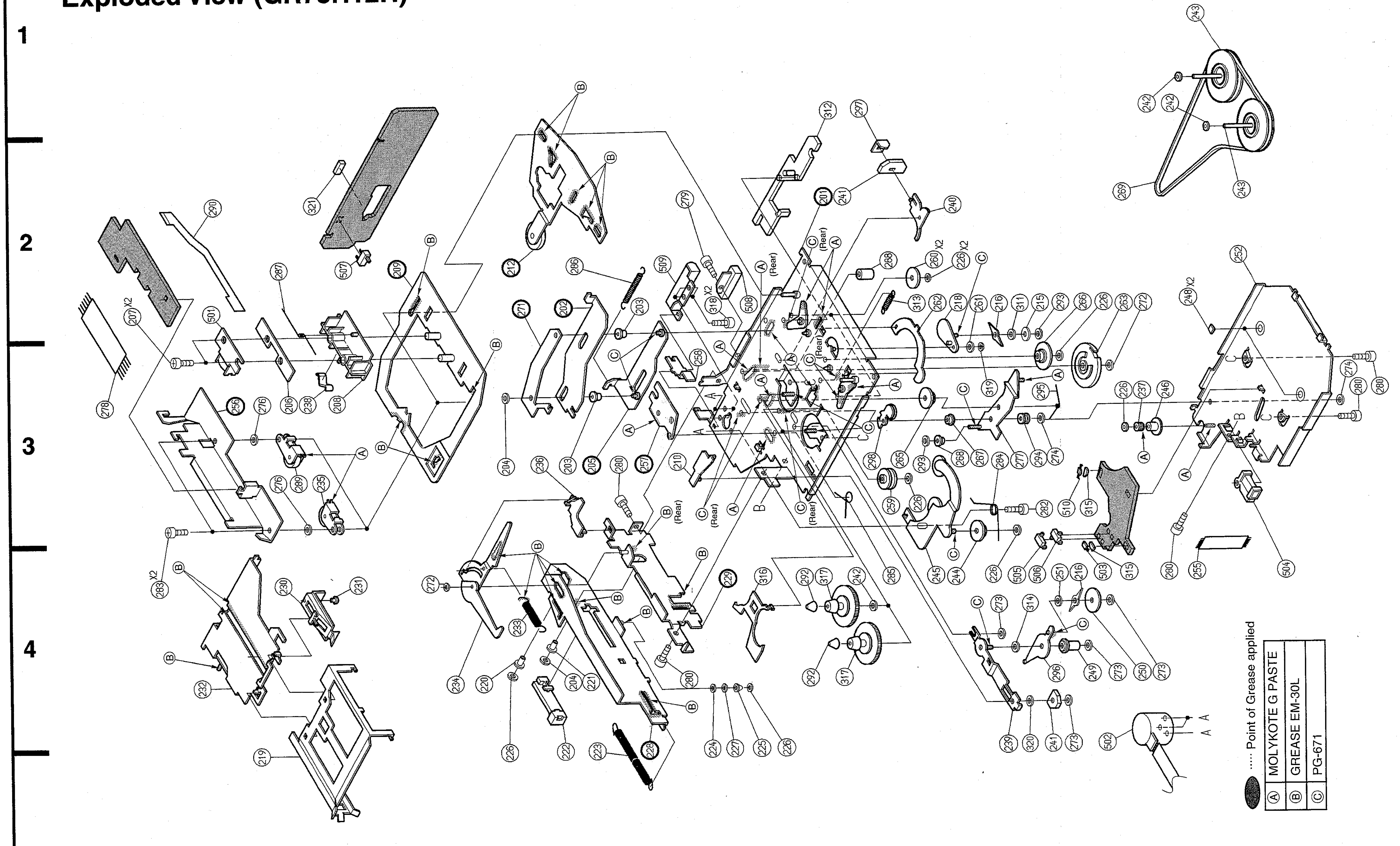
Exploded View (GR75H12H)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●..... Point of Grease applied

Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Mechanism Assembly Parts List

Symbol No.	Index	Part No.	Description
203		43A51119W01	Roller, Sub Head
204		04B41345P01	Washer, Lock (M1.2)
206	3-B	41A31756W01	Spring, Head (GR-Y)
207	2-A	03A38021W01	Screw, Flange (M2×4)
208	3-B	43B12545W01	Tape, Guide
210	3-D	01A30462W01	Assy., Riv. Lever R / F Sol.
215	2-F	44A30480W01	Gear, Planet
216		41A30475W01	Spring, Clutch
218	2-F	01A30824W01	Assy., Riv. Lever Reverse
219	5-B	07B40012W01	Holder, Cassette
220	4-C	43A12583W01	Roller, Eject
221	4-D	43A63281F01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-D	41B10386W05	Spring, GR (Rack)
224	5-D	43A10121W01	Roller, Eject (A)
225	5-D	43A71257W01	Roller, Eject (B)
226		04B41345P11	Washer, Lock (M1.2)
227	5-D	43A12377W01	Roller, Eject (C)
230	4-B	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-B	01A40024W01	Assy., Riv. Plate Base
233	4-C	41B63283F11	Spring
234	4-C	01A40021W01	Assy., Riv. Eject Arm (D)
235	3-B	01B30863W02	Assy., Pinch Roller
236	3-C	45A10087W01	Lever, Pack In Switch
237	3-G	44A20314W01	Pinion, Eject
238	3-B	26A20537W01	Shield, Plate
239	5-F	01A40881W01	Assy., Riv. RF Link
240	2-F	45A40725W01	Lever, Play Sol.
241		76T10374W01	Chip
242	4-E	04S40075G05	Washer, Polyslider (M2.1)
243		01A30488W01	Assy., Flywheel
244	4-F	44A10141W01	Gear, Eject Idler
245	4-E	01A70048W01	Assy., Riv. Lever Clutch
246	3-G	44A10145W01	Gear, Eject
248	2-G	43A41656W01	Spacer, UHMW
249	4-F	44A30481W01	Gear, RF Idler
250	4-G	44A30483W01	Gear, RF
251	4-F	04S40075G58	Washer, Polyslider (M2.1)
252	2-G	01A71527W01	Assy., Riv. Cover Bottom
255	4-G	30T15126W10	Wire, PC Sensor (9P)
258	3-D	45A10101W01	Lever, Eject Sol.
259	3-E	49A30476W01	Pulley, Idler
260	2-E	44A30482W01	Gear, Take Up
261	2-F	44A30478W01	Gear, Sun
262	2-E	44B10135W02	Gear, Fix
263	2-F	44B70042W01	Gear, Pause
265	3-E	44A70044W01	Gear, Pause Idler (B)
266	2-F	44A30479W01	Gear, Reverse Idler
267	3-F	44A30485W01	Gear, Motor Idler
268	3-F	44A30487W01	Gear, Motor Clutch
269	2-F	42A31850W02	Belt, GR-H
272		04B41345P15	Washer, Lock (M1.2)
273		04B41345P02	Washer, Lock (M1.7)
274		04B41345P17	Washer, Lock (M1)
276	3-B	04B41345P32	Washer, Lock (M3.1)
277	3-F	01A30464W01	Assy., Riv. Play Clutch
278	3-A	30T15126W02	Wire, PC Joint (7P)
279	2-D	03S44205G78	Screw, Pan (M2×6)
280		03S44205G30	Screw, Pan (M2.6×4)
282	3-F	03A12132W03	Screw, Eject Clutch (M2×2.3)
283	4-A	03S43997P64	Screw, Pan (M1.7×3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	4-E	41A10385W01	Spring, Cassette Push
286	2-C	41B10386W02	Spring, Sub Head
287	2-B	41A10387W01	Spring, Pinch Roller
288	2-E	43A12719W01	Roller, Pause
289	3-B	01B30863W01	Assy., Pinch Roller
290	2-B	84T25151W01	Head P.C.Board
292	4-E	49A40718W01	Reel, Cap
293		04B41345P35	Washer, Lock (M1.7)
294	3-F	43A30827W01	Spacer, Motor Idler
295	3-F	41A30490W01	Spring, Play Clutch
296	4-F	01A40882W01	Assy., Riv. Lever RF
297	1-E	43A41744W01	Lock, Solenoid
298	3-E	01A70940W01	Assy., Riv. Lever Pause
311	2-F	04B41345P46	Washer, Lock (M2.1)
312	1-E	45A70860W01	Dumper, Sub Head
313	2-E	41A71549W01	Spring, Reel Brake
314	4-F	04S40075G68	Washer, Polyslider (M2.1)
315		15A71833W01	Guide, Photo
316	4-D	01A71704W01	Assy., Riv. Lever Brake
317	4-E	01A45062W03	Assy., Panel
318	2-D	03S94385F47	Screw, Pan Nylok (M2×3.3)
319	3-F	04B41345P18	Washer, Lock (M1.2)
320	5-F	41A10097W02	Spring, Clutch
321	2-B	14A71558W01	Insulator, Cover

Miscellaneous

Symbol No.	Index	Part No.	Description
501	2-B	88T15971W03	Head
502	5-F	01V51800W42	Assy., Motor (13.2V-105mA)
503	4-F	51T15144W02	Sensor, Photo ON2170-R1
504	4-G	01T10371W01	Assy., R / F Solenoid
505	4-F	40T15382W01	Switch, Detector (PACK DOWN)
506	4-F	40T15382W01	Switch, Detector (METAL)
507	2-B	40T15222W01	Switch, Detector (PACK IN)
508	2-D	01T15249W01	Assy., Play Solenoid
509	2-D	01T10369W02	Assy., Eject Solenoid
510	3-F	51T15144W02	Sensor, Photo ON2170-R1